Performance Improvement Team Transfusion Delays

South Texas Veterans Healthcare System

Data Timeframe

January to July 2009

Meet the Team

1. Darla Martinelli, RN Nurse Manager
2. Lisa Browning, RN
3. Bernadette Arredondo, MAS
4. Romeo Mercado, Super Tech
5. Enrique Hernandez, Transport
6. Doug McCoy, PA, Physician Educator
7. Susan Ashley, CAC, IT
8. Shaman Singh, MD, Hospitalist
9. Audrey Tio, MD, Section Chief, Hospitalist
10. David Dooley, MD

Priority Setting Tool

Project	
Project being assessed for priority setting: Blood Administration Delays	**Date:** Dec 2009
Referral Source: Dr. Bauer via QEB	
Services / Location: Blood Bank, Nursing Units, Transporter, MAS	
What data is available demonstrating the problem: None	
Aim/Goal of Re-design / PI Team: To reduce perceived delays in blood administration time	
Business Case for Recommending Re-design/PI Team: Unit LOS, MD Satisfaction	

Assessment Key (Circle all that apply)
High Priority = 7 - 8 Items Circled or 1 Item in the Red Area
Moderate Priority = 4 - 6 Items Circled
Low Priority = 1 - 3 Items Circled

Performance Indicators & Monitors	Other Accreditations	Joint Comission			Key Drivers	ORYX Core Measure	NPSG
		Situational Decision Rule	**Priority Requirement**	**Priority Focus Area**			
Mission Critical Measure	OIG	Immediate Threat to Health & Safety Preliminary Denial of Accreditation (PDA)	High Risk	Assessment & Care Credential Practitioners Communication	Technical Quality	Community Acquired Pneumonia	Pt Identification
Strategic Business Plan	CARF	Situation Decision Rule Conditional Addredication (CA) & PDA	Problem Prone	Equipment Use Infection Control Information Mgmt. Medication Mgmt.	Access To Care	Heart Failure	Improve Communication Among Caregivers
Transformational Measure	CAP	Direct Impact Requirement	New Procedure	Organizational Structure Orientation & Training Patient/Client Safety Physical Environment	Customer Satisfaction	Acute MI	Improve Safety of Using Medications
Key Core Competency	ACOG	Indirect Impact Requirement	High Volume	Performance Improvement Rights & Ethics Staffing	Maximize Resources	SIP	Reduce Risk of Healthcare Associated Infections
Monitor	Surgery		Low Volume		Healthy Communities	ACS	Reconcile Medications
	NCQA				Employer of Choice		Reduce the Risk of Patient Harm Resulting from Falls
	Texas Quality Award						Reduce the Risk of Flu & Pneumonia
	Carey Award						Encourage Patient's Involvement in Own Care
							Prevent Healthcare Associated Pressure Ulcers
							Identify Safety Risks Inherent in Patient Populations

Recommendation:	**Patient Care Re-design**	**PI Team**	**Refer to ACOS**	**Other:**

Aim Statement

To reduce transfusion time from the "MD order" to the "Start Time" on 4 South from 6 hours to 2 hours or less by August 2009.

Team Metrics

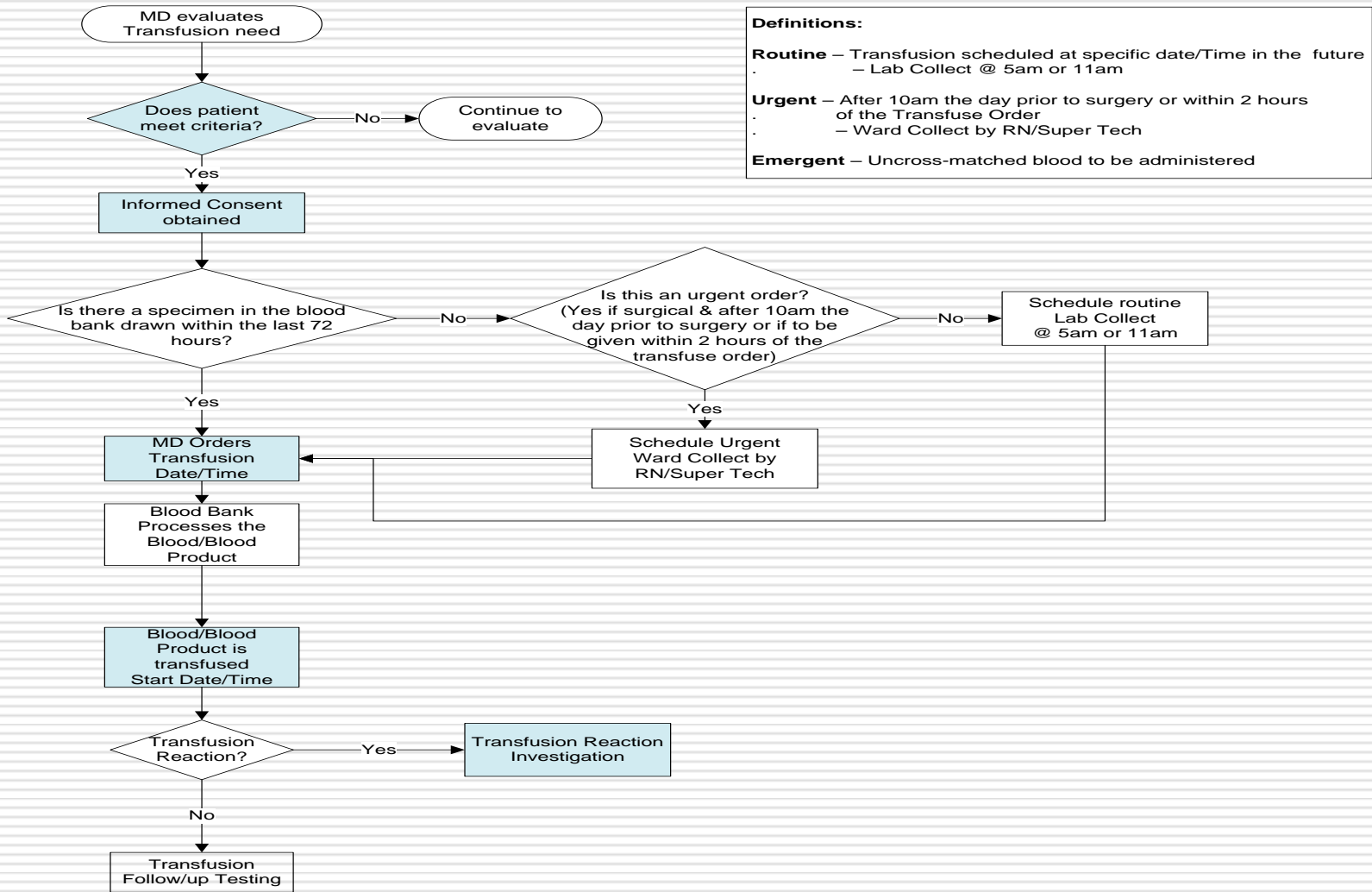| Measures	
1	"MD Transfusion Order" to "Start Time"
2	LOS

Data Elements	
1	Date & Time of the "MD Order"
2	Date & Time of "Transfusion Start Time"
3	Discharge Date - Admit Date = LOS

Pre-Intervention Transfusion Flow

```
MD evaluates
Transfusion need
       │
       ▼
┌─────────────────┐
│  Does patient   │──No──▶  Continue to
│  meet criteria? │         evaluate
└─────────────────┘
       │
       Yes
       │
       ▼
Informed Consent
obtained
```

Definitions:

Routine – Transfusion scheduled at specific date/Time in the future
.   – Lab Collect @ 5am or 11am

Urgent – After 10am the day prior to surgery or within 2 hours
.   of the Transfuse Order
.   – Ward Collect by RN/Super Tech

Emergent – Uncross-matched blood to be administered

```
Is there a specimen in the blood          Is this an urgent order?              Schedule routine
bank drawn within the last 72   ──No──▶   (Yes if surgical & after 10am the  ──No──▶  Lab Collect
hours?                                     day prior to surgery or if to be            @ 5am or 11am
                                           given within 2 hours of the
       │                                   transfuse order)                           │
       Yes                                      │                                      │
       │                                        Yes                                    │
       ▼                                        │                                      │
┌─────────────────┐                             ▼                                      │
│  MD Orders      │◀───────────────   Schedule Urgent                                  │
│  Transfusion    │                   Ward Collect by                                  │
│  Date/Time      │                   RN/Super Tech                                    │
└─────────────────┘◀──────────────────────────────────────────────────────────────────┘
       │
       ▼
Blood Bank
Processes the
Blood/Blood
Product
       │
       ▼
┌─────────────────┐
│  Blood/Blood    │
│  Product is     │
│  transfused     │
│  Start Date/Time│
└─────────────────┘
       │
       ▼
┌─────────────────┐
│  Transfusion    │──Yes──▶  Transfusion Reaction
│  Reaction?      │          Investigation
└─────────────────┘
       │
       No
       │
       ▼
Transfusion
Follow/up Testing
```

Indicates data elements to be
captured for reporting.

Cause & Effect Diagram
Transfusion Delays

Procedures

Delay in getting proper MD Order

Delays in Drawing Blood

Policies

Outdated policies that
do not reflect actual practice

Poorly defined Blood Admin.
Categories (Routine, Emergent)

Do not meet criteria
for blood transfusion

**Transfusion Delays
MD Transfuse Order
to Transfusion Start
Time = <6 Hours**

Inconsistent Staffing Patterns

Poor Communication
MD – RN – PSA - Transporter - Lab

Lack Priority
Awareness & Setting

Inconsistent Notification
Of MAS to RN

Excessive hand off times
BB to Delivery

People

Force Field Analysis Started 04/08/09

Goal: To reduce the time of routine blood administration from the "MD to give" order to the "Transfusion Start Time" on 4South from the 6 hours baseline to 2 hours or less.

Driving Forces	Restraining Forces

Blood administration delays averaging 6 hours 50 minutes

4South staff is patient focused & motivated →

← Poor Communication between MD / Nurse (7)

4South staff motivated to produce good patient outcomes →

← Delays in getting blood drawn (6)

4South staff highly skilled, knowledgeable & capable →

← Lack of priority setting (3)

4South has adequate supplies & equipment →

← Delay in getting orders (2)

Management supports valued employees →

← Excessive hand off times BB ready to delivery (2)

→

← Inconsistent MAS notifiction to RN

→

← Do not meet criteria for blood administration

→

← Poorly difined blood administration categories (routine, Emergent)

→

← Outdated policies that do not reflect actual process

← Inconsistent staffing patterns

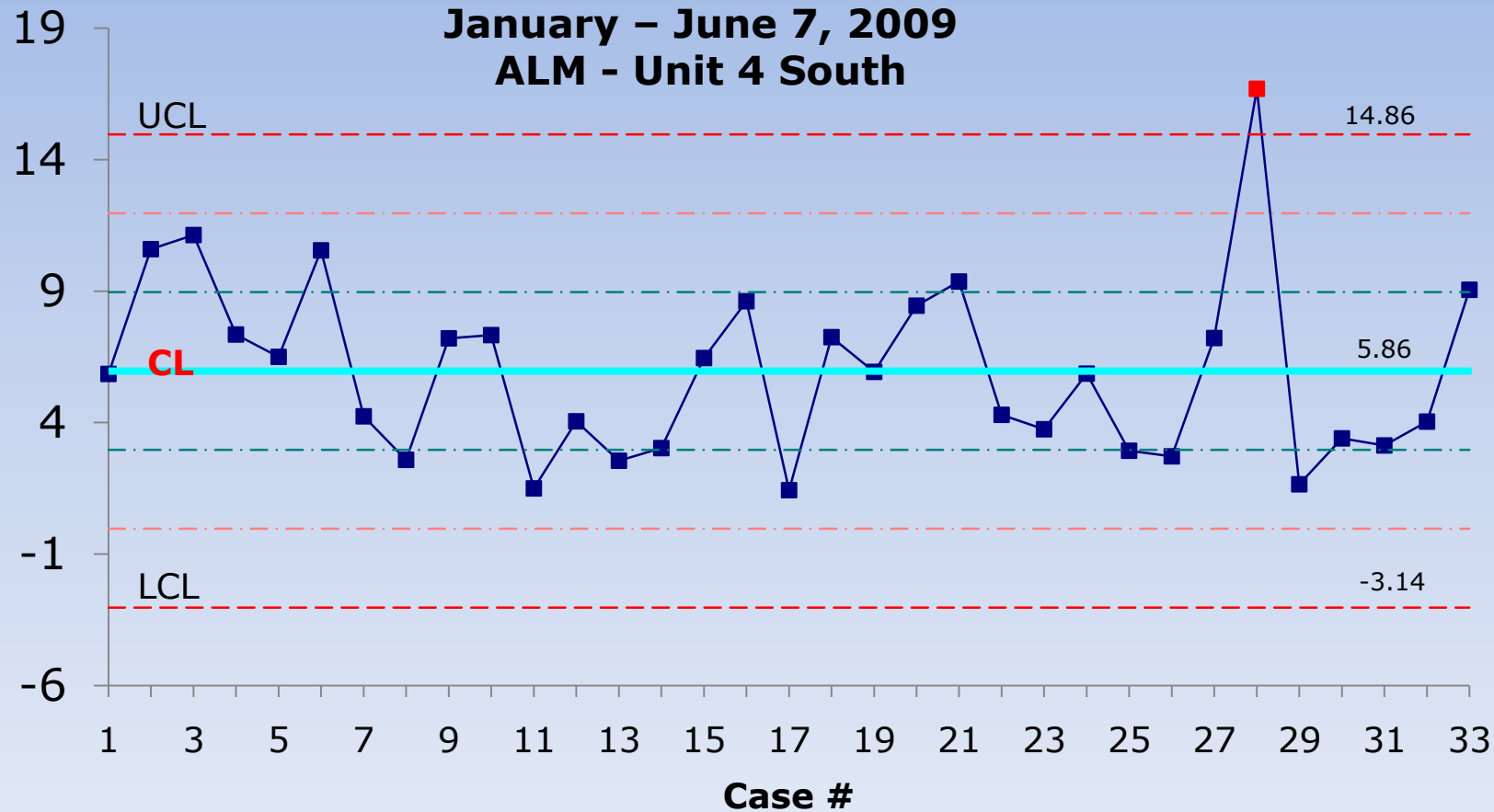These forces produced average Blood administration delays of > 2 hours

Pre-Intervention Data -
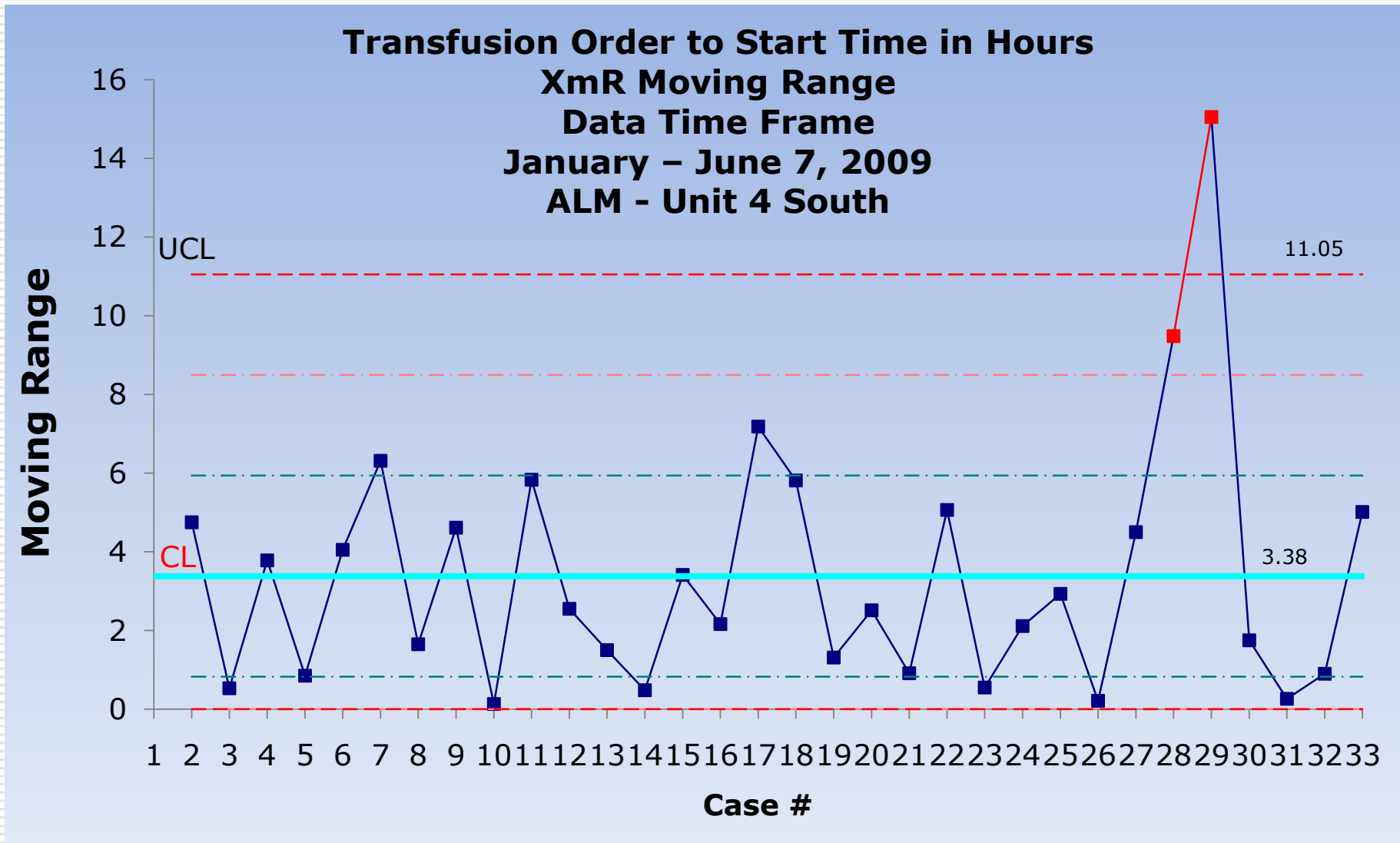## The average time from MD order to transfusion start time is 5.86 hours

Transfusion Order to Start Time in Hours
XmR Average Transfusion Time
Data Time Frame
January – June 7, 2009
ALM - Unit 4 South

Y-axis: **Transfusion to Start Time In Hrs.** (19, 14, 9, 4, -1, -6)

UCL   14.86
CL   5.86
LCL   -3.14

X-axis: **Case #** (1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33)

Pre-Intervention Data-
The average moving range is 3.38 hours

Transfusion Order to Start Time in Hours
XmR Moving Range
Data Time Frame
January – June 7, 2009
ALM - Unit 4 South
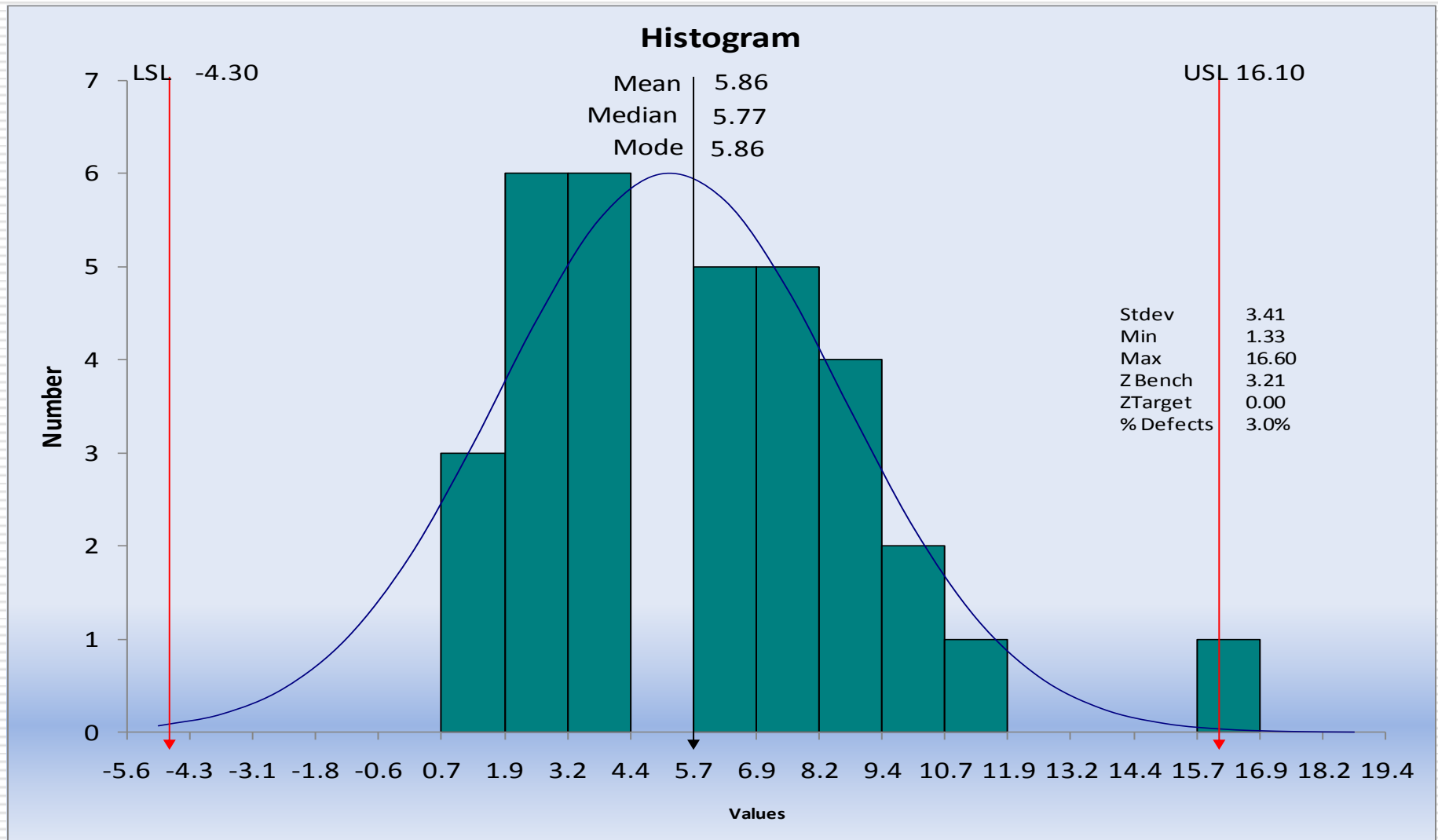
Pre-Intervention Data –

There is wide variation in the data from

MD order to transfusion start time . . .

Interventions
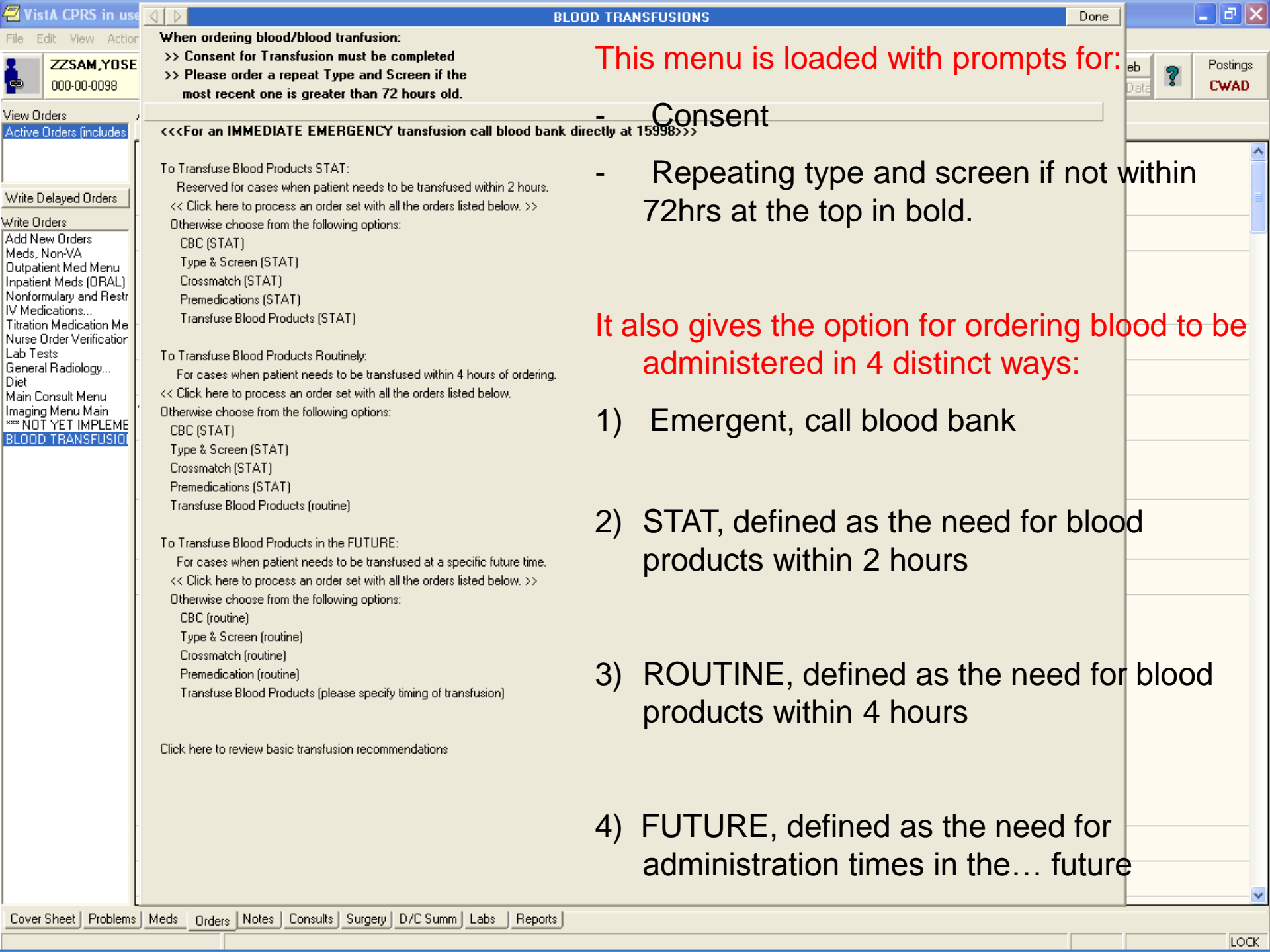
Creating expectations

☐ Precise physician transfusion order

Setting Priorities

☐ RN and MAS Alert List - Teaching Tool

☐ Clarifying provider roles & responsibilities

BLOOD TRANSFUSIONS   Done

ZZSAM,YOSE
000-00-0098

Postings
CWAD

When ordering blood/blood tranfusion:
>> Consent for Transfusion must be completed
>> Please order a repeat Type and Screen if the
   most recent one is greater than 72 hours old.

View Orders
Active Orders (includes

<<<For an IMMEDIATE EMERGENCY transfusion call blood bank directly at 15998>>>

To Transfuse Blood Products STAT:
  Reserved for cases when patient needs to be transfused within 2 hours.
  << Click here to process an order set with all the orders listed below. >>
  Otherwise choose from the following options:
   CBC (STAT)
   Type & Screen (STAT)
   Crossmatch (STAT)
   Premedications (STAT)
   Transfuse Blood Products (STAT)

To Transfuse Blood Products Routinely:
  For cases when patient needs to be transfused within 4 hours of ordering.
  << Click here to process an order set with all the orders listed below.
  Otherwise choose from the following options:
   CBC (STAT)
   Type & Screen (STAT)
   Crossmatch (STAT)
   Premedications (STAT)
   Transfuse Blood Products (routine)

To Transfuse Blood Products in the FUTURE:
  For cases when patient needs to be transfused at a specific future time.
  << Click here to process an order set with all the orders listed below. >>
  Otherwise choose from the following options:
   CBC (routine)
   Type & Screen (routine)
   Crossmatch (routine)
   Premedication (routine)
   Transfuse Blood Products (please specify timing of transfusion)

Click here to review basic transfusion recommendations

Write Delayed Orders

Write Orders
Add New Orders
Meds, Non-VA
Outpatient Med Menu
Inpatient Meds (ORAL)
Nonformulary and Restr
IV Medications...
Titration Medication Me
Nurse Order Verification
Lab Tests
General Radiology...
Diet
Main Consult Menu
Imaging Menu Main
*** NOT YET IMPLEME
BLOOD TRANSFUSIO

This menu is loaded with prompts for:

- Consent

- Repeating type and screen if not within 72hrs at the top in bold.

It also gives the option for ordering blood to be administered in 4 distinct ways:

1) Emergent, call blood bank

2) STAT, defined as the need for blood products within 2 hours

3) ROUTINE, defined as the need for blood products within 4 hours

4) FUTURE, defined as the need for administration times in the… future

When ordering blood/blood tranfusion:

>> Consent for Transfusion must be completed
>> Please order a repeat Type and Screen if the
   most recent one is greater than 72 hours old.

<<<For an IMMEDIATE EMERGENCY transfusion call blood ba

To Transfuse Blood Products STAT:
   Reserved for cases when patient needs to be transfused within 2 hours
   << Click here to process an order set with all the orders listed below. >>
   Otherwise choose from the following options:
      CBC (STAT)
      Type & Screen (STAT)
      Crossmatch (STAT)
      Premedications (STAT)
      Transfuse Blood Products (STAT)

To Transfuse Blood Products Routinely:
   For cases when patient needs to be transfused within 4 hours of orderin
   << Click here to process an order set with all the orders listed below. >>
   Otherwise choose from the following options:
      CBC (STAT)
      Type & Screen (STAT)
      Crossmatch (STAT)
      Premedications (STAT)
      Transfuse Blood Products (routine)

To Transfuse Blood Products in the FUTURE:
   For cases when patient needs to be transfused at a specific future time.
   << Click here to process an order set with all the orders listed below. >>
   Otherwise choose from the following options:
      CBC (routine)
      Type & Screen (routine)
      Crossmatch (routine)
      Premedication (routine)
      Transfuse Blood Products (please specify timing of transfusion)

Click here to review basic transfusion recommendations

Transfuse blood products (STAT)

Field	Value
Transfuse Blood Products (STAT):	TRANSFUSION
Instructions:	Nurse please administer STAT (within 2 hou
Units of PRBC'S	
Units of FFP:	
Units of Platelets:	
Other:	
Start Date/Time:	NOW
Stop Date/Time:	T+14
Has IMed Consent for blood transfusion been completed?	

TRANSFUSION
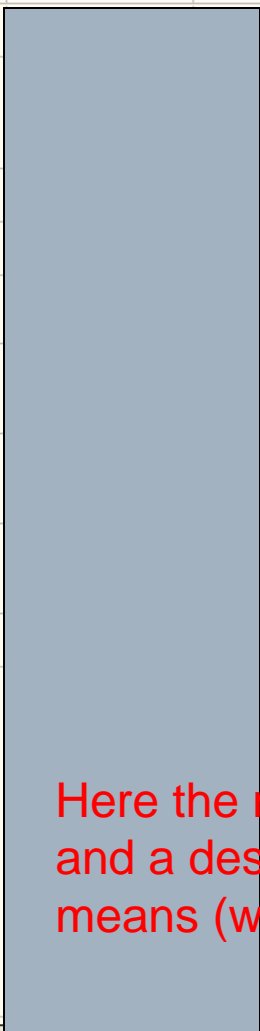Instructions: Nurse please administer STAT (within 2 hours).

Accept Order

Quit

The appearance of the nurse transfusion text order stays the same, but now has defined time expectations.

View Orders
Active Orders [includes

Write Delayed Orders

Write Orders
Add New Orders
Meds, Non-VA
Outpatient Med Menu
Inpatient Meds (ORAL)
Nonformulary and Restr
IV Medications...
Titration Medication Me
Nurse Order Verification
Lab Tests
General Radiology...
Diet
Main Consult Menu
Imaging Menu Main
*** NOT YET IMPLEME
BLOOD TRANSFUSIO

ZZSAM,YOSE
000-00-0098

Postings
CWAD

Cover Sheet | Problems | Meds | Orders | Notes | Consults | Surgery | D/C Summ | Labs | Reports

LOCK

File   Edit   View   Action   Options   Tools   Help

ZZSAM,YOSEMITE TEST PAT	HDERMT May 07,09 12:19	Primary Care Team Unassigned	Flag	VistaWeb	?	Postings
000-00-0098 Oct 10,1910 (98)	Provider: SINGH,SHAMAN K			Remote Data		CWAD

View Orders

Active Orders [includes

Write Delayed Orders

Write Orders

Add New Orders
Meds, Non-VA
Outpatient Med Menu
Inpatient Meds (ORAL)
Nonformulary and Restr
IV Medications...
Titration Medication Me
Nurse Order Verificatior
Lab Tests
General Radiology...
Diet
Main Consult Menu
Imaging Menu Main
*** NOT YET IMPLEME
BLOOD TRANSFUSIOI

Active Orders (includes Pending & Recent Activity) - ALL SERVICES

Service	Order	Start / Stop	Provider	Nurse	Clerk	Chart	Status	Location
Nursing	**>> Transfusion** **Instructions: Nurse please administer STAT (within 2 hours).** **2 Units of PRBC'S** **Has IMed Consent for blood transfusion been completed?** **Yes *UNSIGNED***	**Start: NOW** **Stop: T+14**	**Singh,S**				**unreleas**	**Hopc De**
Code Statu	>> Rescind DNR Order. Make ID bracelet without heart shaped hole punch.	Start: 05/01/08 11:51					active	Vikie's Tes
	>> Code Status: DNR No CPR - Apply heart punched ID bracelet, No Defibrillation, No Vasopressors Additional information: None.	Start: 10/04/07 11:20					active	Vikie's Tes
	>> I Concur with and authorize the DNR order(s) written by the Intern/Resident Physician.	Start: 10/04/07 11:20					active	Vikie's Tes
	>> Code Status DNR status note and order must be entered by physician	Start: 10/04/07 11:20					active	Vikie's Tes
A/D/T	>> DISCHARGE APPOINTMENT Discharge Appointment: Jul 23, 2007@12:30 Stop Date: 7 DAYS FROM TODAY	Start: 07/23/07 12:25					active	Vikie's Tes
Nursing	>> Transfusion Instructions: Nurse please administer STAT (within 2 hours). 2 Units of PRBC'S Has IMed Consent for blood transfusion been completed? Yes						cancelled	Hopc Derr
	>> Transfusion Instructions: Nurse please administer per requested date/time. 4 Units of FFP Has IMed Consent for blood transfusion been completed? Yes	Start: 05/29/09 13:17					active	Hopc Derr
	>> EKG Patient to have EKG during next visit to VA Hospital. NOW Apr 16, 2010	Start: 01/22/07 15:32 Stop: 04/16/10					active	Vikie's Tes
	>> CBC w/Diff CBC daily (with manual diff once WBC>/= 0.3 cells/mm3 post-nadir)	Start: 07/05/06 17:30					active	Outpt Surg
	>> Post Angiogram Procedure 1.Patient to lie flat with Left straight x 6 hrs until 1400 2.Check Left Groin for bleeding and/or hematoma q 15 min x4; q1h x2; then q4h x4. 3.Check vital signs and Left Foot/pedal artery pulses on same schedule as above. 4.Continue IV at 100ml/hr for 4 hrs; then run according to H.O. orders. 5.Encourage P.O. fluids. 6.Resume pre-angiogram orders. 7.Call Radiology Fellow for bleeding,increasing hematoma,or decreasing pulse. call 513-xxxx with questions	Start: 10/24/05 08:52					active	Radiology

Here the nursing order has STAT and a description of what that means (within 2 hours)
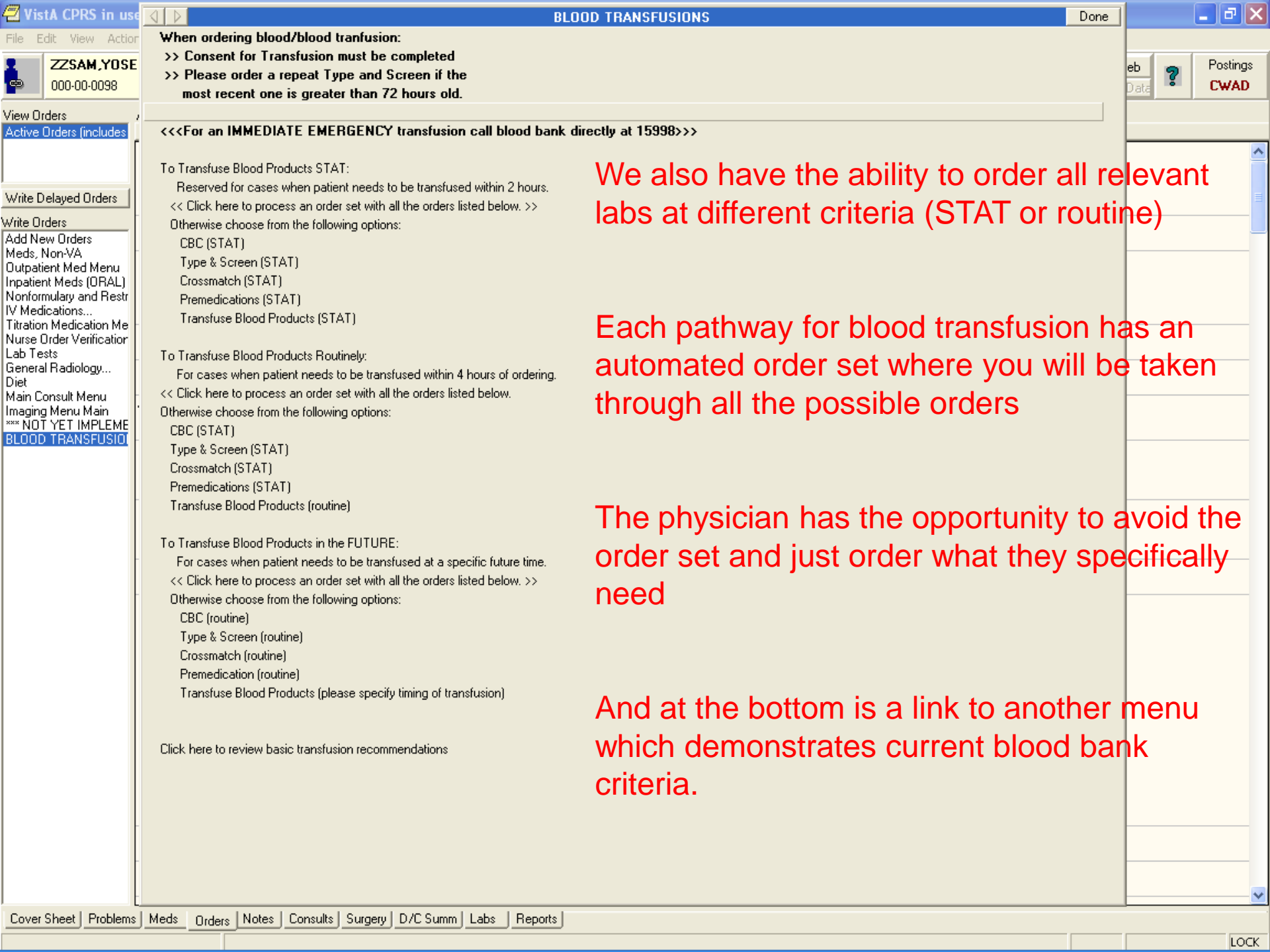
Cover Sheet Problems Meds Orders Notes Consults Surgery D/C Summ Labs Reports

LOCK

BLOOD TRANSFUSIONS   Done

ZZSAM,YOSE
000-00-0098

Postings
CWAD

When ordering blood/blood tranfusion:
>> Consent for Transfusion must be completed
>> Please order a repeat Type and Screen if the
    most recent one is greater than 72 hours old.

<<<For an IMMEDIATE EMERGENCY transfusion call blood bank directly at 15998>>>

To Transfuse Blood Products STAT:
    Reserved for cases when patient needs to be transfused within 2 hours.
    << Click here to process an order set with all the orders listed below. >>
    Otherwise choose from the following options:
        CBC (STAT)
        Type & Screen (STAT)
        Crossmatch (STAT)
        Premedications (STAT)
        Transfuse Blood Products (STAT)

To Transfuse Blood Products Routinely:
    For cases when patient needs to be transfused within 4 hours of ordering.
    << Click here to process an order set with all the orders listed below.
    Otherwise choose from the following options:
        CBC (STAT)
        Type & Screen (STAT)
        Crossmatch (STAT)
        Premedications (STAT)
        Transfuse Blood Products (routine)

To Transfuse Blood Products in the FUTURE:
    For cases when patient needs to be transfused at a specific future time.
    << Click here to process an order set with all the orders listed below. >>
    Otherwise choose from the following options:
        CBC (routine)
        Type & Screen (routine)
        Crossmatch (routine)
        Premedication (routine)
        Transfuse Blood Products (please specify timing of transfusion)

Click here to review basic transfusion recommendations

View Orders
Active Orders (includes

Write Delayed Orders

Write Orders
Add New Orders
Meds, Non-VA
Outpatient Med Menu
Inpatient Meds (ORAL)
Nonformulary and Restr
IV Medications...
Titration Medication Me
Nurse Order Verification
Lab Tests
General Radiology...
Diet
Main Consult Menu
Imaging Menu Main
**** NOT YET IMPLEME
BLOOD TRANSFUSIO

We also have the ability to order all relevant labs at different criteria (STAT or routine)

Each pathway for blood transfusion has an automated order set where you will be taken through all the possible orders

The physician has the opportunity to avoid the order set and just order what they specifically need

And at the bottom is a link to another menu which demonstrates current blood bank criteria.

Cover Sheet | Problems | Meds | Orders | Notes | Consults | Surgery | D/C Summ | Labs | Reports

LOCK

ZZSAM,YOSE
000-00-0098

View Orders
Active Orders (includes

Write Delayed Orders

Write Orders
Add New Orders
Meds, Non-VA
Outpatient Med Menu
Inpatient Meds (ORAL)
Nonformulary and Restr
IV Medications...
Titration Medication Me
Nurse Order Verification
Lab Tests
General Radiology...
Diet
Main Consult Menu
Imaging Menu Main
**** NOT YET IMPLEME
BLOOD TRANSFUSIO

Postings
CWAD

<< NOTE: The following are general guidelines that the blood bank uses to
approve products. Patients must be evaluated individually to determine the
proper transfusion therapy. Transfusion decisions should be based on
clinical assessment and not on lab values alone.>>

General Recommendations of Transfusion Criteria:

1. Packed Red Blood Cells (PRBC) or Autologous Whole Blood:
   For most patients threshold is Hemoglobin (g/dL)/Hemocrit less than 8/24
   In patients with Coronary Artery Disease threshold is H/H less than 10/30

2. Fresh Frozen Plasma:
   Threshold is INR>2 or PTT>60 sec

3. Platelets:
   Threshold is platelet count < 20 10e3/uL
   For an invasive procedure platelet count < 50 10e3/uL

4. Cryoprecipitate or Fibrinogen:
   Threshold is Fibrinogen < 100 mg/dL

<< Click on arrow in upper left of this screen to return to previous menu

These are current blood bank guidelines to be used as
recommendations. Note the stipulation in bold at the top for
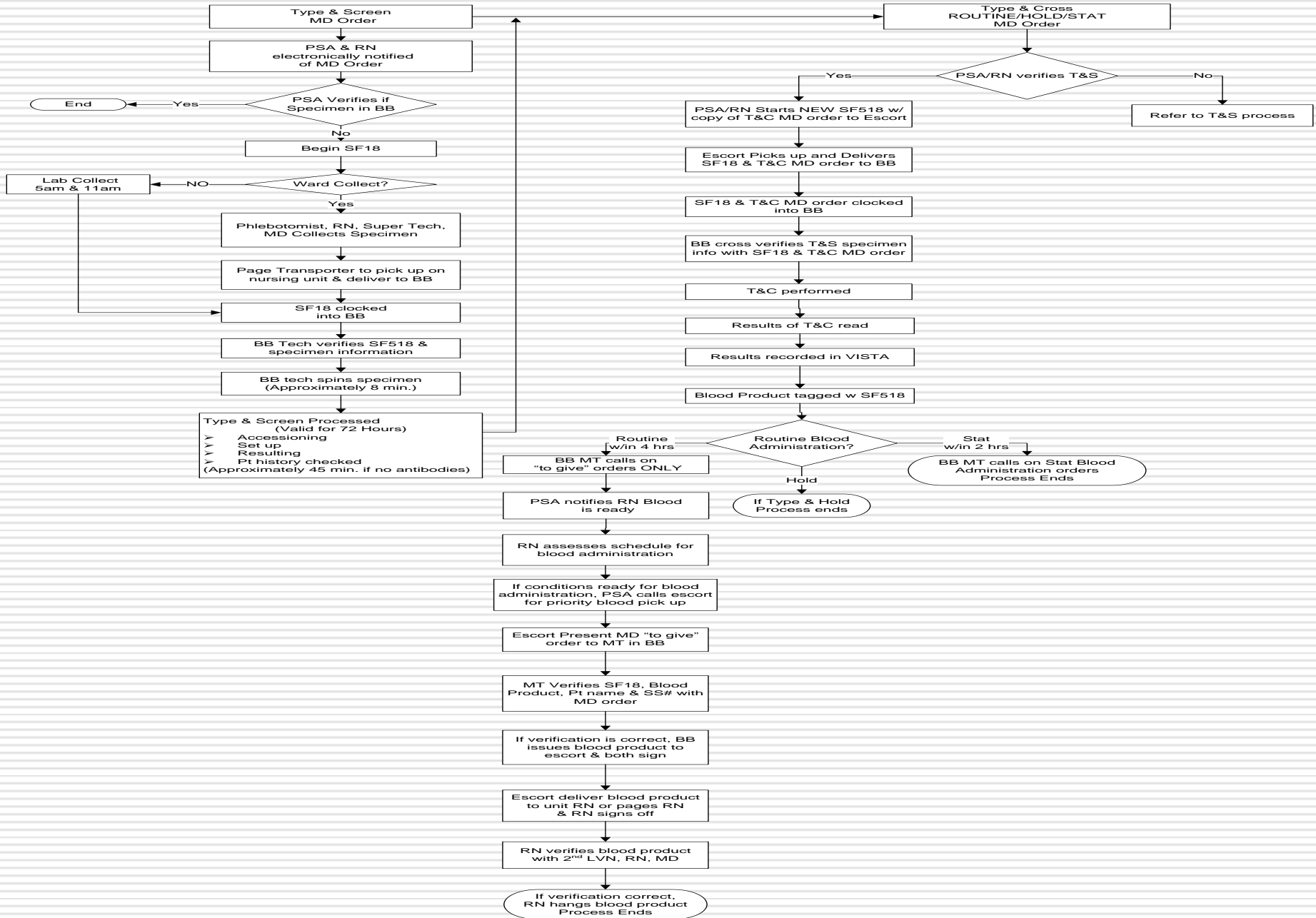decisions to be made based upon clinical assessment and not
on lab values alone.
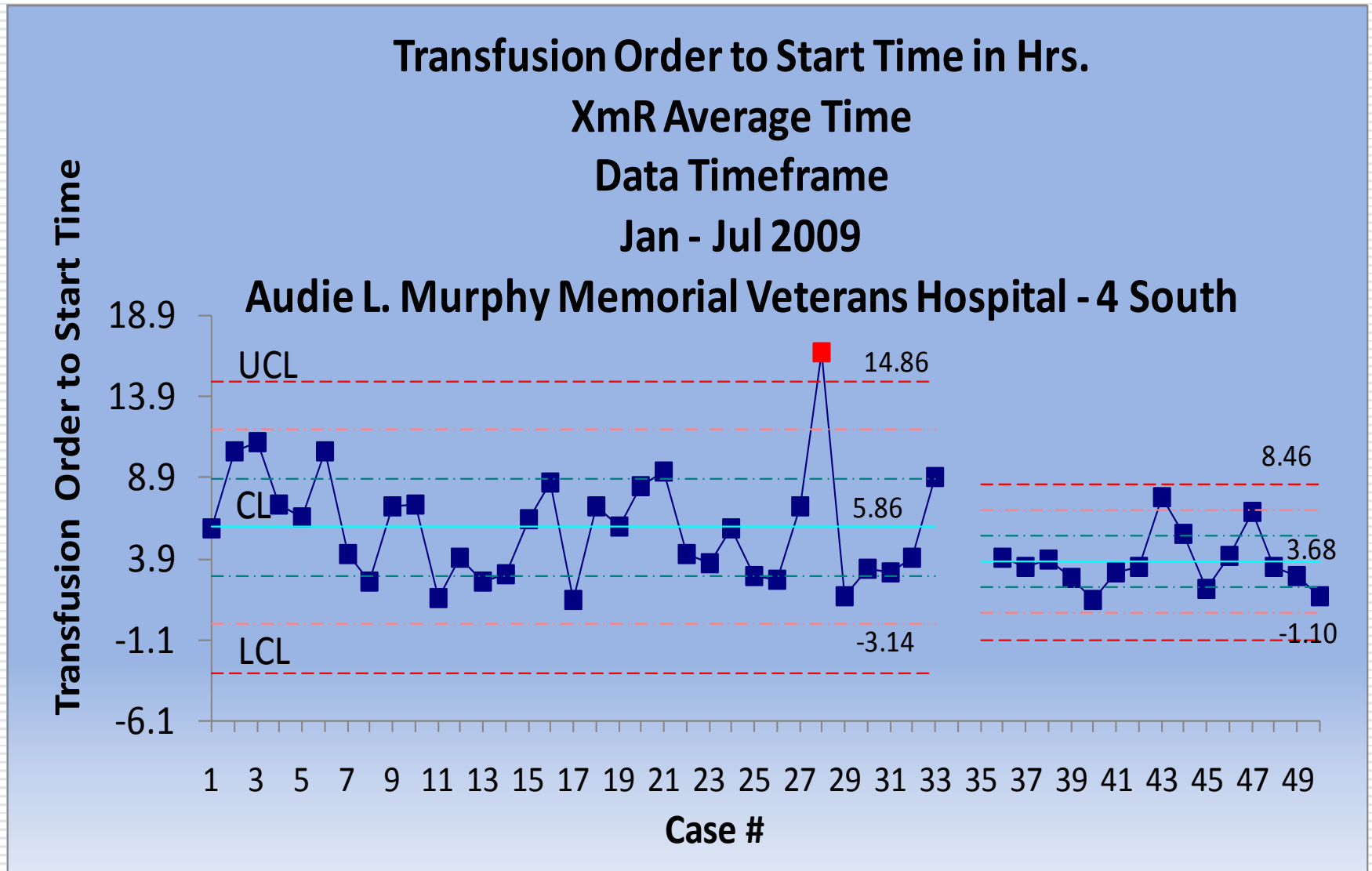
Cover Sheet | Problems

LOCK

Implementation

- Implementation of the *NEW* transfusion order occurred June 10, 2009.

- Education on the *NEW* transfusion order occurred through:
    - MD's/Surgical Service - Doug McCoy
    - Medicine Service – Drs. Tio & Singh
    - Residents – David Dooley, MD
    - QEB – Jay Brooks, MD
    - CEB – Shaman Singh, MD
    - RN's – 4South Darla Martinelli
    - MAS – 4South Bernadette Arredondo & Michael Weiner Chief MAS
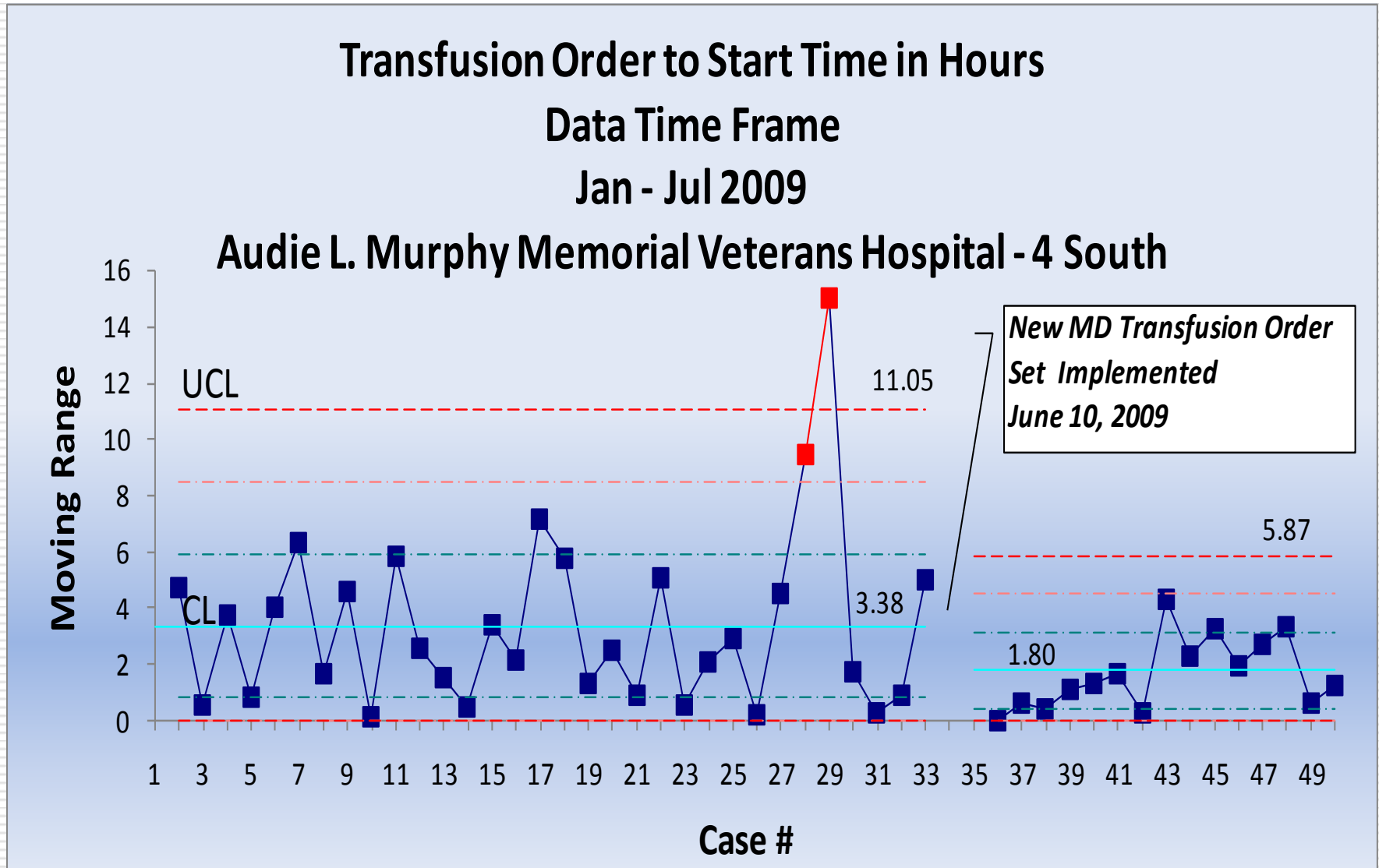
Post-Intervention
Blood Administration Flow

Type & Screen
MD Order

Type & Cross
ROUTINE/HOLD/STAT
MD Order

PSA & RN
electronically notified
of MD Order

PSA/RN verifies T&S
— Yes → / — No →

PSA Verifies if
Specimen in BB — Yes → End

Refer to T&S process

No

Begin SF18

PSA/RN Starts NEW SF518 w/
copy of T&C MD order to Escort

Lab Collect
5am & 11am ← NO — Ward Collect?

Escort Picks up and Delivers
SF18 & T&C MD order to BB

Yes

Phlebotomist, RN, Super Tech,
MD Collects Specimen

SF18 & T&C MD order clocked
into BB

Page Transporter to pick up on
nursing unit & deliver to BB

BB cross verifies T&S specimen
info with SF18 & T&C MD order

SF18 clocked
into BB

T&C performed

BB Tech verifies SF518 &
specimen information

Results of T&C read

BB tech spins specimen
(Approximately 8 min.)

Results recorded in VISTA

Type & Screen Processed
(Valid for 72 Hours)
➢ Accessioning
➢ Set up
➢ Resulting
➢ Pt history checked
(Approximately 45 min. if no antibodies)

Blood Product tagged w SF518

Routine
w/in 4 hrs

Routine Blood
Administration?

Stat
w/in 2 hrs

BB MT calls on
"to give" orders ONLY

BB MT calls on Stat Blood
Administration orders
Process Ends

Hold

PSA notifies RN Blood
is ready

If Type & Hold
Process ends

RN assesses schedule for
blood administration

If conditions ready for blood
administration, PSA calls escort
for priority blood pick up

Escort Present MD "to give"
order to MT in BB

MT Verifies SF18, Blood
Product, Pt name & SS# with
MD order

If verification is correct, BB
issues blood product to
escort & both sign

Escort deliver blood product
to unit RN or pages RN
& RN signs off

RN verifies blood product
with 2nd LVN, RN, MD

If verification correct,
RN hangs blood product
Process Ends

Post-Intervention Data -

## The average time from MD order to transfusion start time decreased from 5.86 hours to 3.68 hours

Transfusion Order to Start Time in Hrs.
XmR Average Time
Data Timeframe
Jan - Jul 2009
Audie L. Murphy Memorial Veterans Hospital - 4 South

Post-Intervention Data-
The average moving range decreased from 3.38 hours to 1.80 hours

Transfusion Order to Start Time in Hours
Data Time Frame
Jan - Jul 2009
Audie L. Murphy Memorial Veterans Hospital - 4 South

New MD Transfusion Order Set Implemented June 10, 2009

Post-Intervention Data –
Data skews to the right due to an outlier at the 17 hour range

Histogram - Transfusion Order to Start Time

LSL -4.10   Mean 5.18   USL 14.50

Median 3.99

Mode 5.18
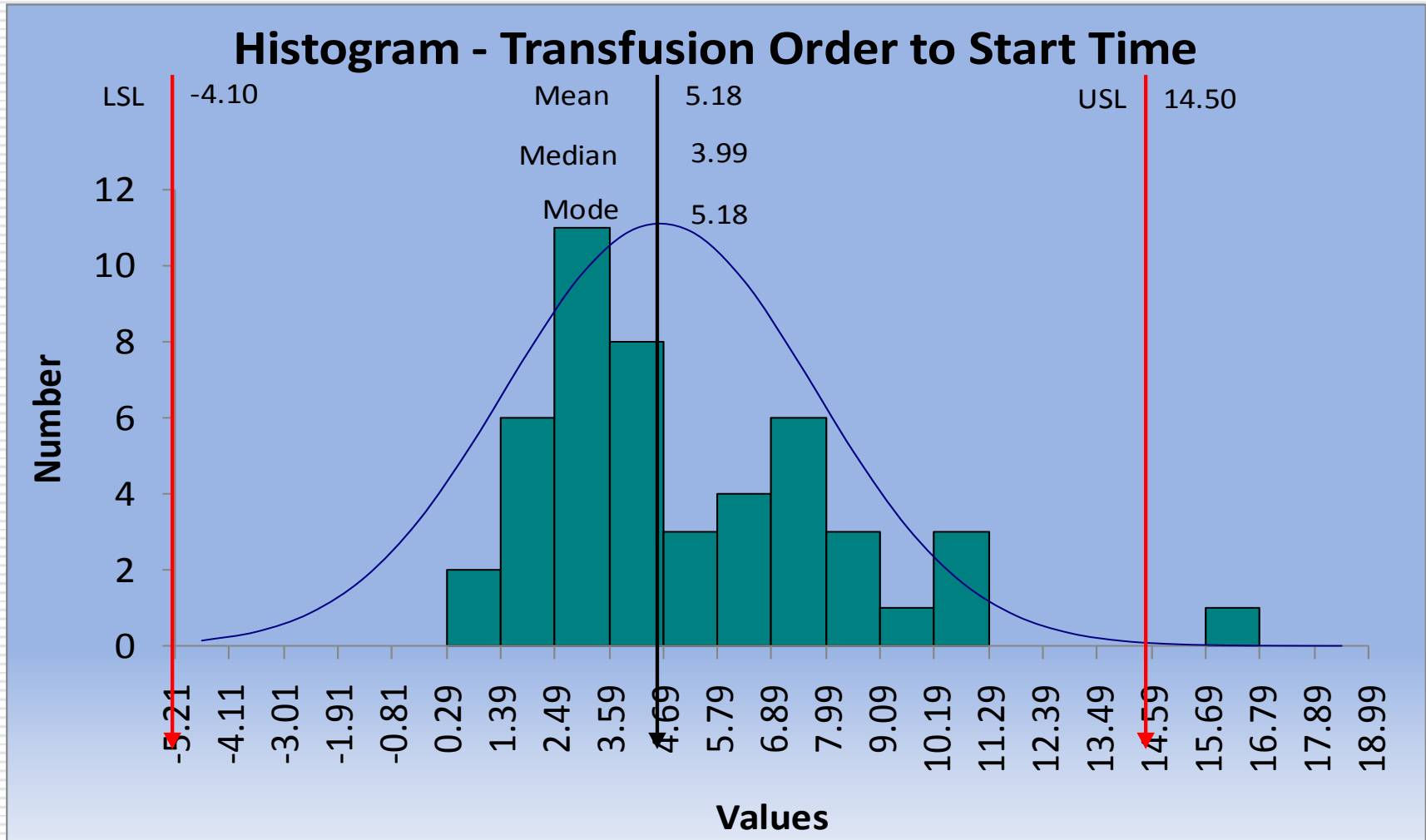
Post – Intervention Data

The diagram suggests a direct relationship between transfusion time and LOS

Scatter Diagram - Transfusion Time vs LOS
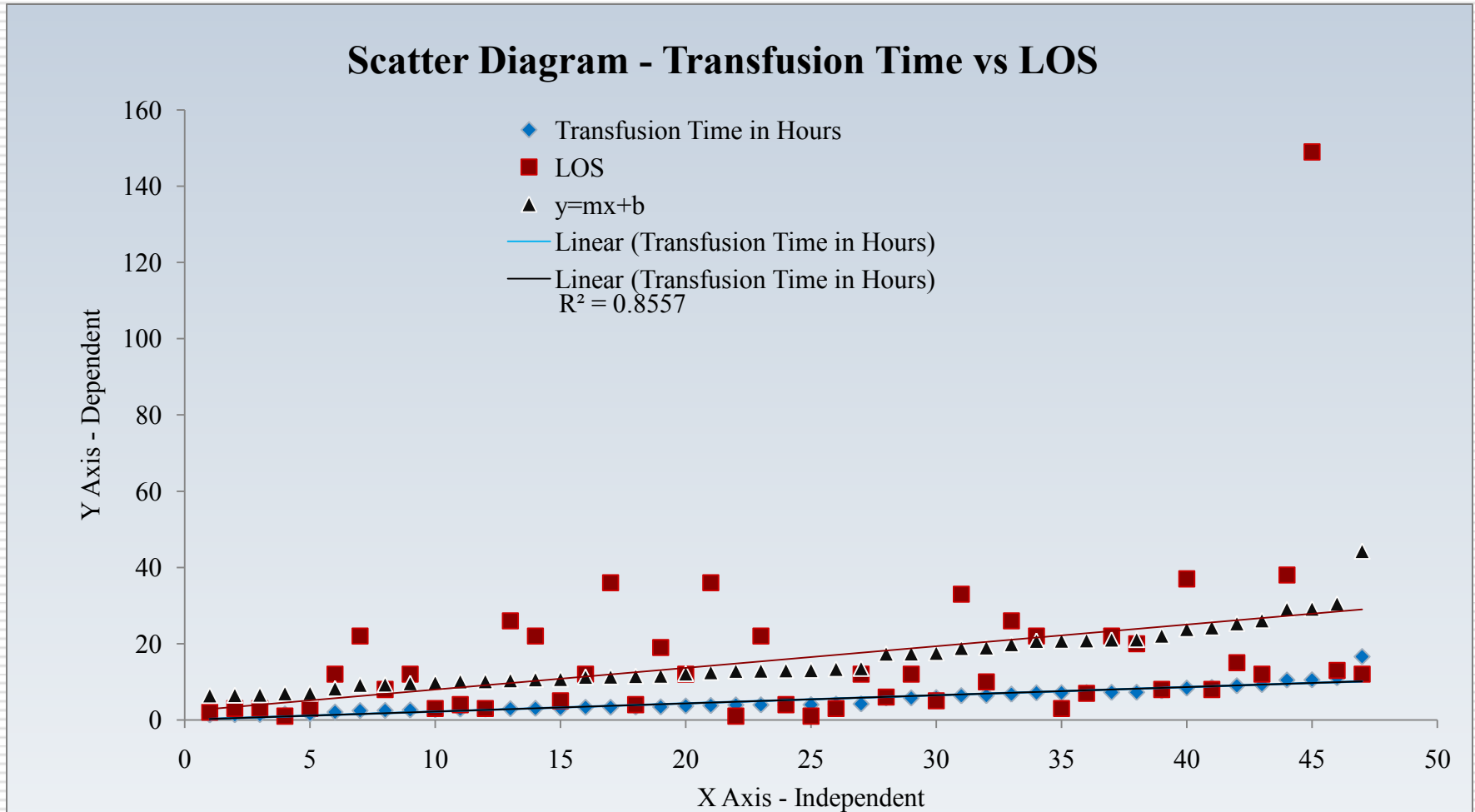
Building the Business Case

❑ There is statistically significant change (P-value = 0.41) in LOS between the before and after intervention groups.

❑ Too few post intervention data were collected to date. There were 14 post intervention compared to 33 pre intervention data points.

❑ Continued data collection is expected to change this observation.

❑ There are many variables that impact LOS on 4 South Nursing Unit.

❑ We will continue to monitor LOS metrics throughout ALM VA Hospital.

Anova: Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
Before LOS	33	585	17.73	656.58
After LOS	14	164	11.71	155.14

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	355.41	1	355.41	0.69	0.41	4.06
Within Groups	23027.40	45	511.72			
Total	23382.80851	46				

Building the Business Case

❑ Differences in cost per case cannot be directly attributable to new transfusion physician order set.

❑ Too few post intervention values were collected to date. There were 14 post intervention compared to 33 pre intervention data points. Continued data collection may change this observation.

❑ There are many variables that impact LOS on 4 South Nursing Unit.

❑ We will continue to measure cost per case metrics for impact.

Patient Population	AVLOS	Cost / Day	Cost / Case
Before Intervention	17.7	$1,706	$30,196
After Intervention	11.7	$1,706	$19,960
	Cost Difference		**$10,236**

Lessons Learned

❑ A "good" physician order is key to creating nursing expectations and follow through.

❑ We eliminated arbitrary verbal turnaround times and instead based transfusion on physician clinical assessment coupled with blood bank guidelines.

❑ We focused on our desire to improve and put aside prior performance & prejudice.

❑ We created a safe environment of trust in which to make mistakes and to learn how to make improvements.

❑ We broke down barriers between departments and created the expectation of multi-disciplinary team effort.

❑ The *new* clearly defined process will be reflected in the revised Blood Administration Policy.

Sustain Best Practice

- ☐ 4 South data will be reported to the Blood Use Committee on a routine basis.

- ☐ The data will also be placed on the 4 South PI Dashboard to provide feedback to staff on their performance.

- ☐ We are beginning to spread this best practice to 6B and will eventually cover all nursing units with reporting to Blood Use Committee and Nursing PI Dashboards.

Sustain Best Practice

- This team submitted an abstract to the VHA Improvement Forum in July 2009.

- This team submitted an abstract for presentation in October, 2009 to the Center for Safety Effectiveness.

- An abstract will be submitted to the IHI poster presentation for December 2009.

- We expect to publish and are looking for the proper opportunity to make this happen.

Point of Contact

- Amir Ehsan, MD - Champion
- Jay Brooks, MD – Team Leader
  Director, Blood Bank Services
- Yolanda Garza & Michael Noriega - Co-Team Leaders
  Blood Bank Supervisors

- Edna Cruz, RN, MS, CPHQ - Facilitator
  QM Clinician – Performance Improvement Clinician
  1-210-260-1686
- Diane Woomer, RN, MSN,- Co-Facilitator
  QM Clinician – Medicine
  1-210-364-8154