



# ACCREDITATION IN MANITOBA QUALITY INITIATIVES A DSM Perspective

## **Blood Day 2010 – Stop Look and Listen**

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# Presentation Objectives

## ■ DSM Organizational Overview

- Organization
  - Responsibilities
  - Structure
- Management Model
- Quality
  - Mandate
  - Goals

## ■ In Pursuit of Quality

- Accreditation
  - Manitoba Quality Assurance Program (MANQAP)
  - College of American Pathologists (CAP)



# Presentation Objectives

- Transfusion Medicine Indicators
  - Plasma Audit
  - Sample Acceptance/Rejection
  - Temperature Monitoring Compliance
- External Proficiency
  - ALQEP Level B (Crossmatch)
  - ALQEP Level D (Non Crossmatch)



# DSM Organizational Overview



# DSM Responsibilities

## ■ Responsible for:

- Lab and Transfusion Medicine for all public sites in Manitoba
- Diagnostic imaging for all public sites in rural Manitoba. (Not Winnipeg or Brandon)



# DSM Structure

- Board of Directors
- Senior Management
  - CEO / CMO / CFO / CAO / COO
- Management / Operations
  - Winnipeg
  - Brandon
  - Rural
- Operations / Quality



# DSM Structure

## ■ Discipline Teams

### ■ Medical and Technical Directors

- Transfusion Medicine
- Chemistry and Genetics
- Microbiology
- Hematology
- Immunology
- Pathology
- Diagnostic imaging



# DSM Transfusion Medicine Discipline Team

- Dr. Amin Kabani – Medical Director
- Dr. Kerry MacDonald – External Medical Consultant
- Theresa Wiwchar – Technical Director
- Brenda Herdman - TM Coordinator
- Dana Sirrell – Administrative Assistant



# DSM Quality

- Dr. Amin Kabani (CMO)
- Pete Chackowsky (Director of Quality)
- Quality Specialists (3)
- Accreditation Coordinator
- Document Control Specialist



# DSM Quality

## ■ Mandate

- Implementation and Maintenance of Quality Systems for all DSM Sites.

Examples:

- Non-Conformance / Occurrences
- Document Control
- Training / Competence
- Complaints
- Audits
- Management Reporting
- Accreditation Support



**IN PURSUIT OF QUALITY**  
**Accreditation**  
**MANQAP**  
**CAP**



# Accreditation in Manitoba DSM Perspective



Manitoba Health



College of Physicians &  
Surgeons of Manitoba



Manitoba Quality Assurance Program  
(MANQAP)



College of American Pathologists  
(CAP)



# Accreditation in Manitoba DSM Perspective

## ■ MANQAP Accreditation

- Rural Facilities
- Winnipeg Community Hospitals and Health Centre's
- Brandon (WRL)

## ■ CAP Accreditation

- Health Sciences Centre (HSC)
- St. Boniface Hospital (SBH)



# Accreditation in Manitoba DSM Perspective

## ■ MANQAP Process

- Application
- Pre-Survey Questionnaires (Submit)
- Pre-Survey Internal Audit
- MANQAP On-Site Evaluation
- Interim Report / Close Out
- Final Report and Status Assignment
- 90 Day Response and Action (All Recommendations)



# Accreditation in Manitoba DSM Perspective

## ■ CAP Process

- Application
- Customized Checklists
- CAP On-Site Survey
- Report / Status / Corrective Action required
- 12 Month Internal Audit (Verify)
- 2 Year re-Survey (Unannounced)
- Continue Cycle



# Accreditation in Manitoba DSM Perspective

## ■ Challenges

- Unique Provincial Structure
  - ✦ Many recommendations are Global, some are Site Specific/ RHA Specific
  - ✦ MANQAP Reports generated by Site
- Size of Organization and Geography
  - ✦ 77 (78,79,80,81 . . . ) Sites
  - ✦ Altona to Churchill
  - ✦ Single Management Structure



# Accreditation in Manitoba DSM Perspective

## ■ Challenges

### ◆ Standardization

- Historically many different policies and procedures
- Consensus
- Implementation
  - Distribution
  - Training / Competence
  - Confirmation
- Document Control



# Accreditation in Manitoba DSM Perspective

## ■ Challenges

### ■ CAP Accreditation

- Major Project for HSC and St. Boniface
- Going straight to the gold international standard
- “Bridging” items for TM. CAP taking a Vein to Vein approach
- SOPS, SOPs, SOPs . . . .



# Accreditation in Manitoba DSM Perspective

## ■ What's Working Well?

### ● MANQAP Process

- Closure of Previous Items
- New 90 day Process

### ● CAP Process

- New to DSM
- Staff Involvement
- External Consultant Review
  - Readiness Assessment



# Accreditation in Manitoba DSM Perspective

## ■ Goals

- Closure of all Accreditation Recommendations
- Increased Internal Audits and Self-Evaluations
- Accreditation readiness at all sites at all times

■ **= Improved Patient Safety** ✓



# QUALITY INDICATORS



# Quality Indicators

- DSM is committed to developing a comprehensive quality management program.
- The selection and monitoring of quality indicators is a key component.
- Quality indicators provide information on:
  - Performance
  - Opportunities for improvement
  - Adverse trends
  - Preventative and/or Corrective Actions
  - Improved Customer Relations
  - Assists with development/supports for business cases

■ **= Improved Patient Safety**



# TRANSFUSION MEDICINE INDICATORS (examples)



# PLASMA AUDIT Customer Relations



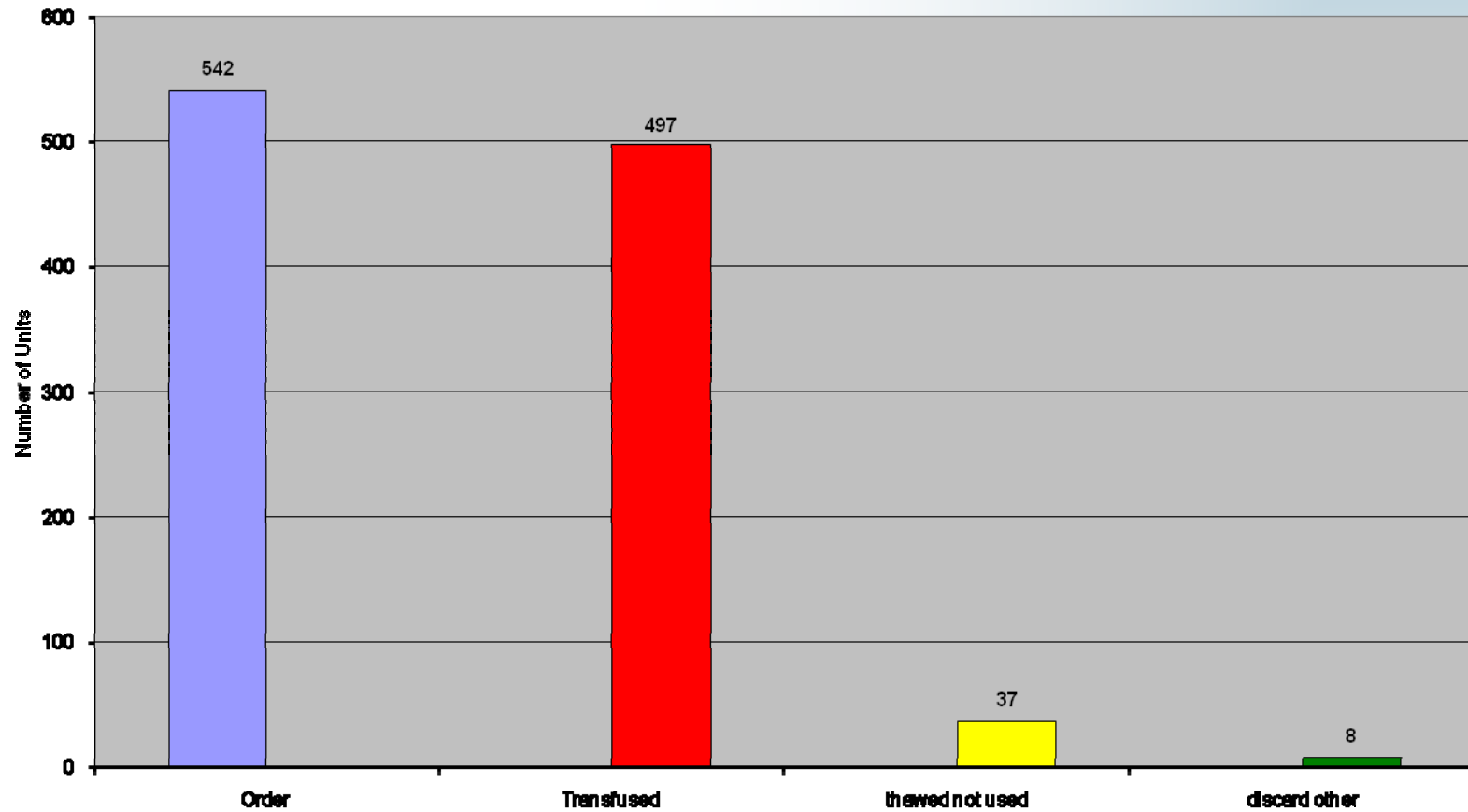
# Plasma Audit

- Initiated in response to lab perception of increased product wastage
- Audit focus was on clinical users with high utilization rates
  - OR
  - Emergency
  - Intensive Care Units (Surgical & Medical)
- Audit parameters
  - Review of 12 months of received clinical requests
  - Clinical requests divided into:
    - Total # of units
    - # units transfused
    - # units thawed not used



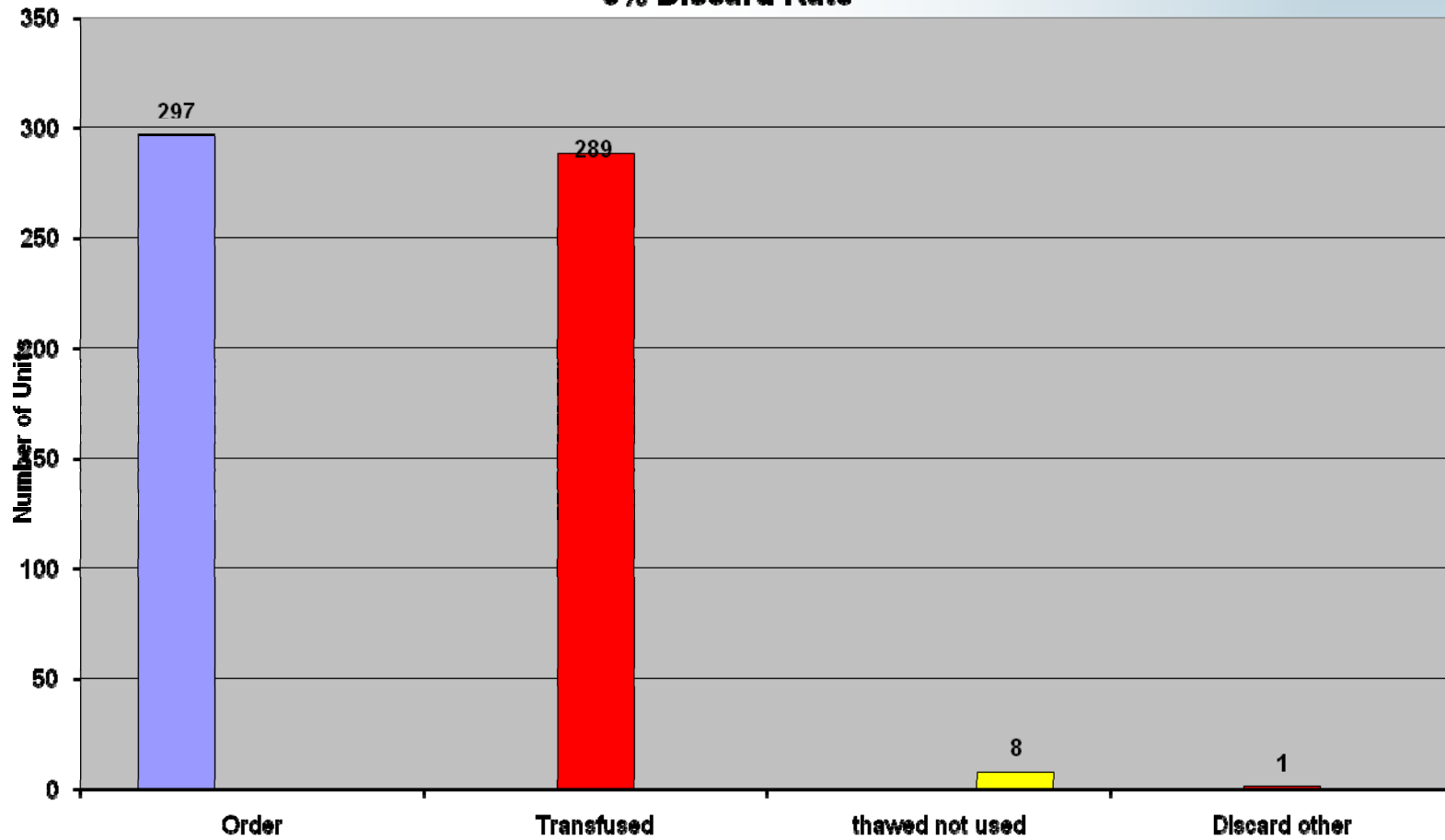
# Plasma Audit

**Plasma-ICCS  
6% Discard Rate**



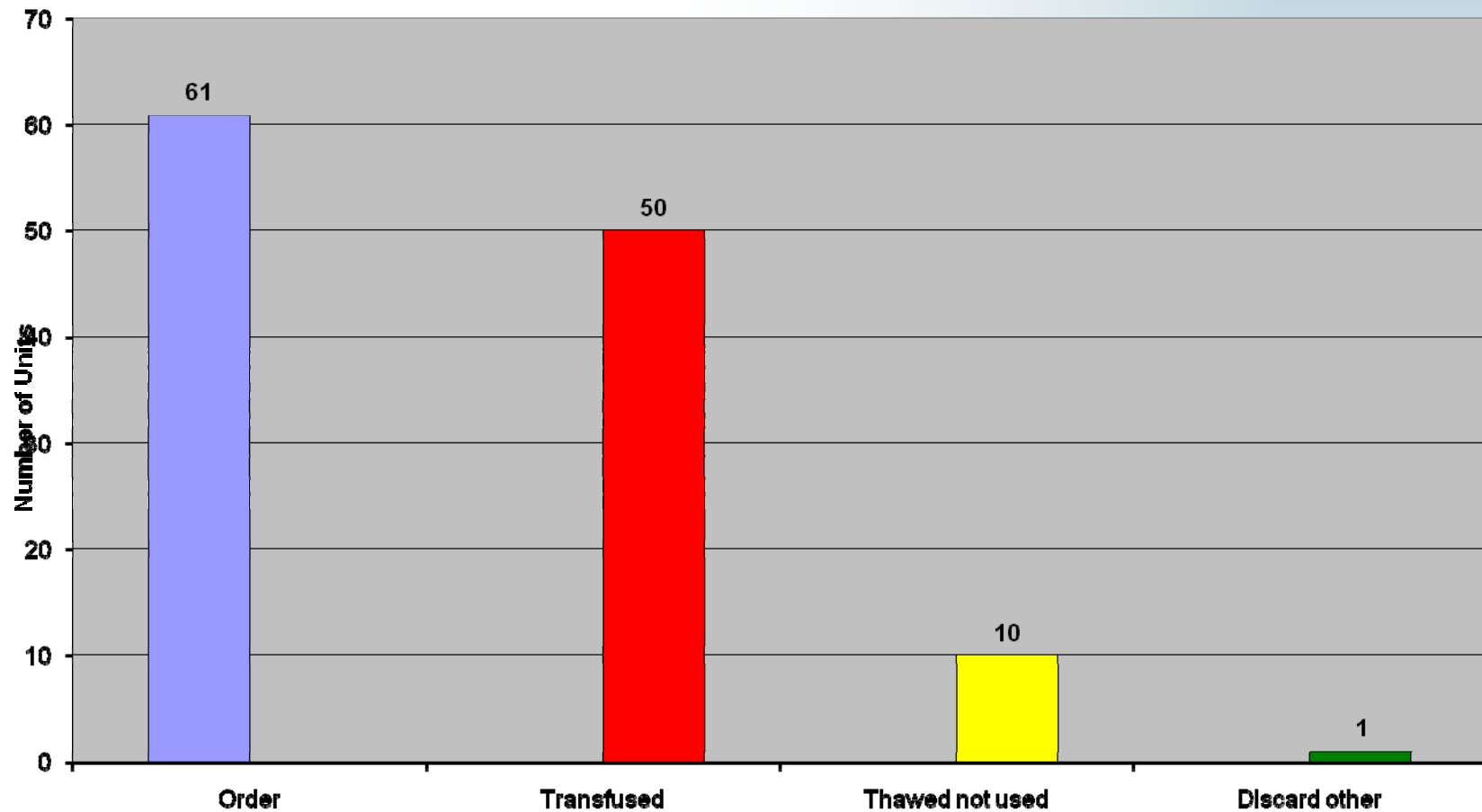
# Plasma Audit

**Plasma-ICMS  
3% Discard Rate**



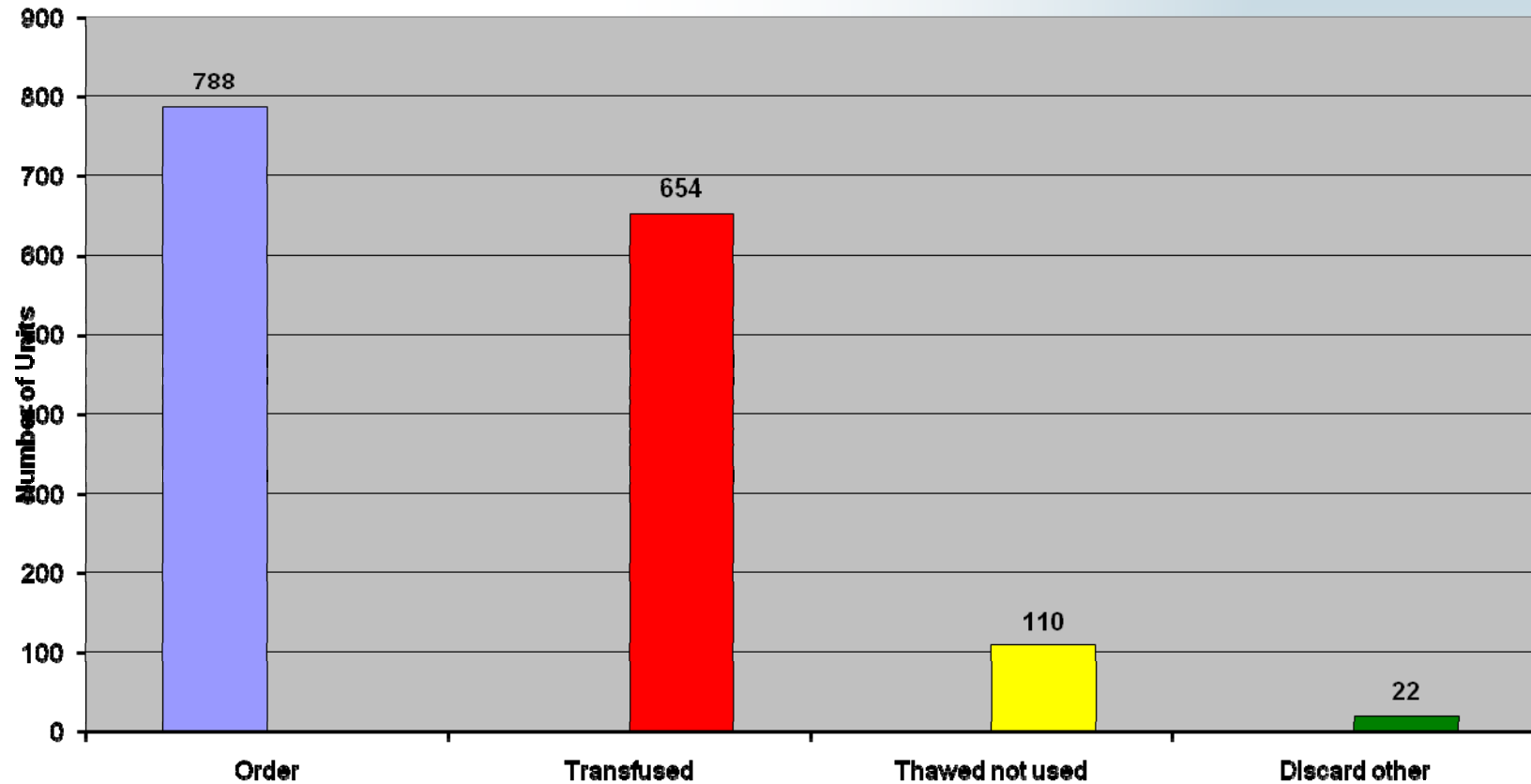
# Plasma Audit

**Plasma-ER  
17% Discard Rate**



# Plasma Audit

**Plasma-OR  
14% Discard Rate**



# Plasma Audit Summary

- Data results reveal % wastage ranging from 3% to 17%
  - Cost impact would equate to a cost of \$400 (assumption 3 to 4 units per clinical order)
- Typically these plasma requests are stat/emergent and have additional blood products ordered (i.e. RBCs' Platelets)
- Data requires additional clinical review and consultation to assess:
  - Order appropriateness
  - Strategies to reduce wastage as appropriate



# SAMPLE ACCEPTANCE/REJECTION MULTI FACETATED INDICATOR

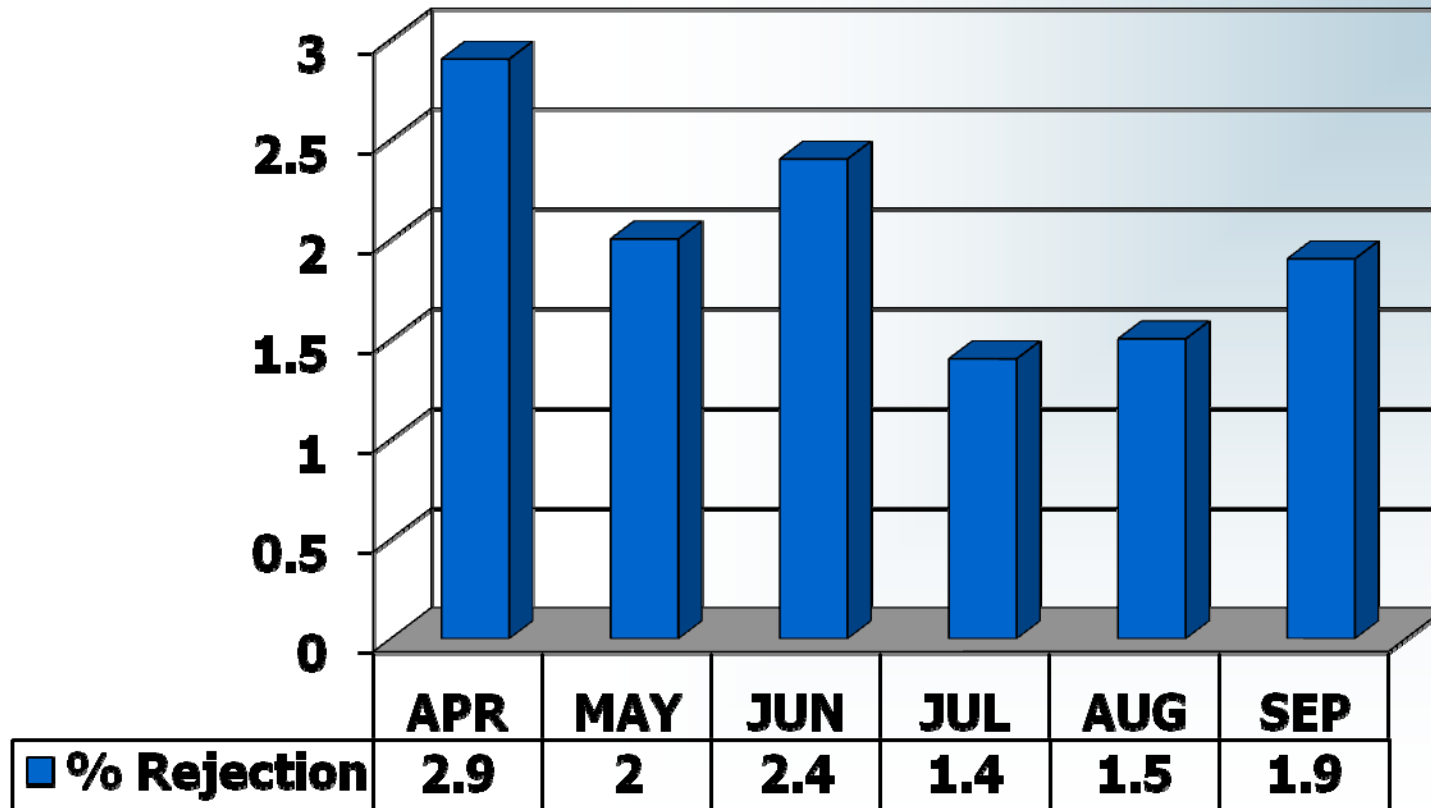


# Sample Acceptance/Rejection

- Sample rejection rates & reasons for rejection are monitored to:
  - Identify opportunities for improvement,
  - Education needs and,
  - Trends/shifts (prior to and after corrective actions)
- Parameters audited:
  - Total # samples received per location
  - Reasons for rejection
- Data results tallied:
  - Per location
  - Reasons grouped into rejection categories
  - Global averages obtained to reveal overall % rejection



# Sample Acceptance/Rejection Results



**Global Picture Tertiary Centre**

**Overall Totals**

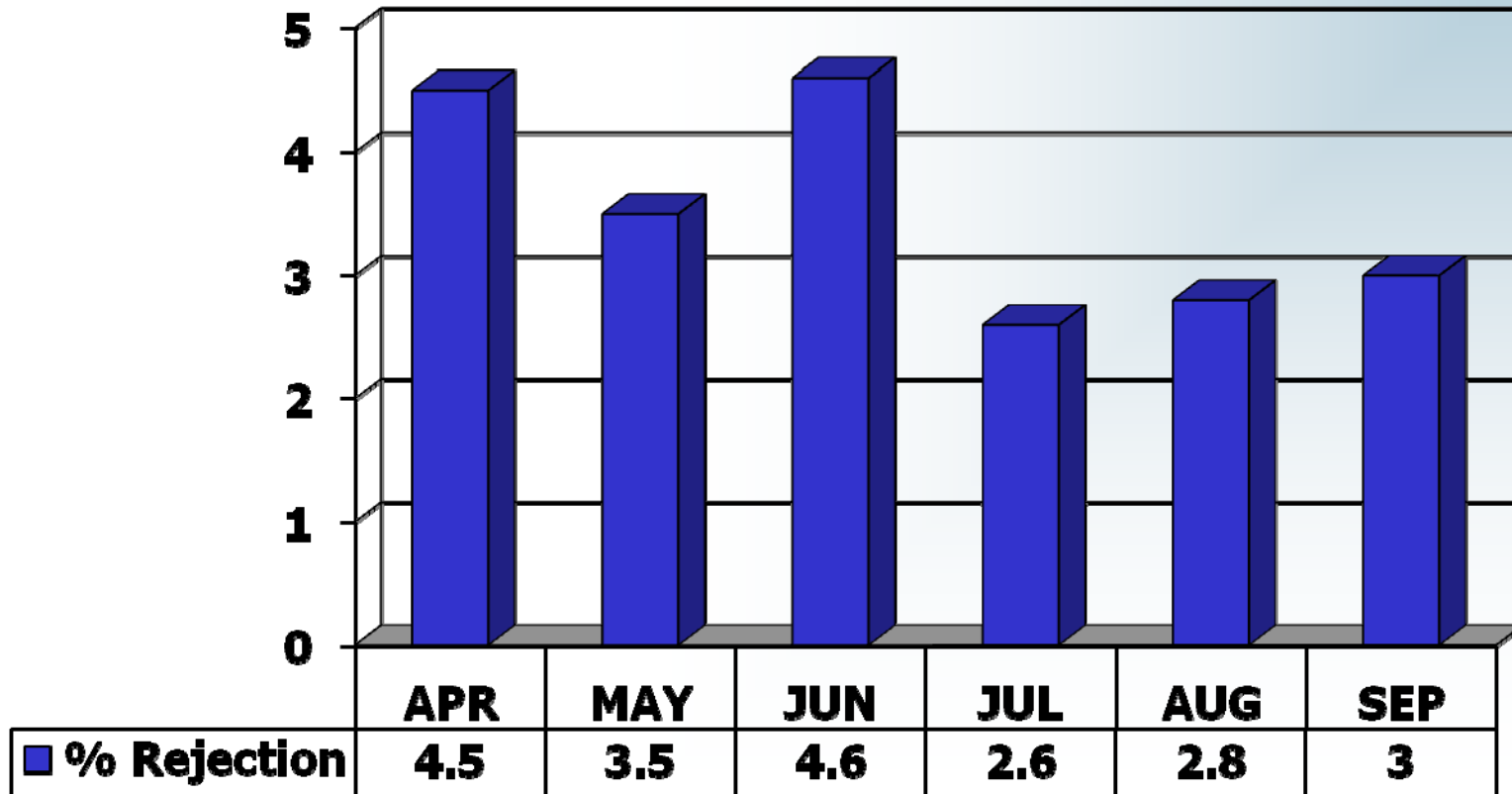
Total # of Samples Received: 12,526

Total # of Samples Rejected: 254

**Average % Rejection: 2%**



# Sample Acceptance/Rejection Results



## Identified Hot Spots

Global Total # Samples Received: 12,526

Hot Spots Total # Samples Received: 7262 (58% of total samples received)

**Average % Rejection: 3.5%**



# Sample Acceptance/Rejection Reasons

- The rejection categories were as follows:
  - Incorrect Spelling
    - Patient first and/or last name
  - Incorrect Information
    - Patient first and/or last name (mismatch)
    - Unique identifier
  - Missing information
    - Patient first and/or last name
    - Date of collection
    - Unique identifier
  - Clerical Errors
    - Double addressographed requisitions
    - Smudged information
    - Use of white out
    - Over-labeled
  - Wrong collection tube used



# Sample Acceptance/Rejection Summary

- Data results reveal the majority of the sample rejections fall into:
  - Incorrect spelling
  - Incorrect information
  - Missing information
- Statistically:
  - 58% of samples received require an intervention
    - Impact: staff workload, delay in service
  - Three categories account for 63% to 82% of all sample rejections
    - Impact: patient recollection, delay in service



# Sample Acceptance/Rejection Summary

- Further investigation is required to identify the root cause(s) of sample rejection. For instance:
  - Manual processes
  - Collection practices
  - Requisition/label layout
  - Workflow design
  - Space constraints
  - Competing priorities (multi-tasking)
- Once root causes are identified collaboration with our healthcare partners is required to improve patient care



# TEMPERATURE MONITORING COMPLIANCE PERFORMANCE INDICATOR



# TEMPERATURE MONITORING COMPLIANCE

- Transfusion temperature controlled storage equipment must be monitored and temperatures documented to ensure:
  - Temperature ranges for each blood product type inventoried are maintained
  - Any deviations are documented and accounted for
  - Integrity of blood product



# TEMPERATURE MONITORING COMPLIANCE

- Audit initiated to assess accreditation readiness and internal audit findings of missed temperature checks
- Temperature compliance audit parameters:
  - Assessment of documentation completed
  - Calculated:
    - # of missed days per month over,
    - Total number of days/month
  - Comparison done when lab performs all temperature checks versus having clinical users perform for satellite storage equipment



# % Compliance

Location	2004 (T <sup>0</sup> documented x3/day)	2010 (T <sup>0</sup> documented x1/day)
East	12 month avg. = 95% Month Low = 91% (~ 10% missed)	12 month avg. = 99% Month Low = 97%
West	12 month avg. = 95% Month Low = 89% (>10% missed)	12 month avg. = 99% Month Low = 97%

Note: Tasks completed by clinical staff  
Benchmark: Achievement of 100% compliance



# Temperature Monitoring Compliance Summary

- Compliance improved after:
  - Change in standards (x3/day to x1/day)
  - TM manual implementation
  - Training
  - Continuing Education
    - ✦ Department in-services
- End result: % compliance equaled blood bank staff performance (99% with low of 97%)



# EXTERNAL PROFICIENCY ALQEP



# External Proficiency

A process that outlines the participation, performance and completion of transfusion medicine proficiency testing to promote the highest quality of laboratory service in accordance to transfusion standards and in the interest of accomplishing quality patient care



# External Proficiency (EPT)

- DSM participates in transfusion medicine EPT through an external program provider, the Alberta Laboratory Quality Enhancement Program – ALQEP
- Enrollment/participation in EPT challenges are determined by scope of services delivered by the laboratory
- EPT assesses the laboratory's overall performance as well as proficiency of medical laboratory technologists/assistants.



# External Proficiency (EPT)

- Proficiency challenges shall:
  - Be processed as if they were routine patient samples,
  - Use quality control methods consistent with those used for patient samples and,
  - Follow repeat testing criteria used for patient samples.
- Performance of EPT survey challenges are to be completed by staff who routinely perform the task and assigned on a rotational basis



# External Proficiency (EPT)

- ALQEP EPT Challenge Surveys:
  - Levels B1/B2
    - DSM Crossmatch Sites
    - Simulated patient plasma/red cell set and two donor red cell samples
  - Level D
    - DSM non crossmatch dispensary only
      - educational focus
    - Received quarterly with a paper challenge with questions
- DSM TM has scheduled quarterly provincial teleconferences to:
  - Facilitate the completion of the challenge surveys and,
  - Provide a forum to discuss other areas of concern related to transfusion medicine
  - Requested participation for non crossmatch sites and open invitation for the crossmatch





Thank You  
Questions?

