

# The Meaning of Stat

By: Theresa Wiwchar, DSM Technical Director, Transfusion  
Blood Day Presentation  
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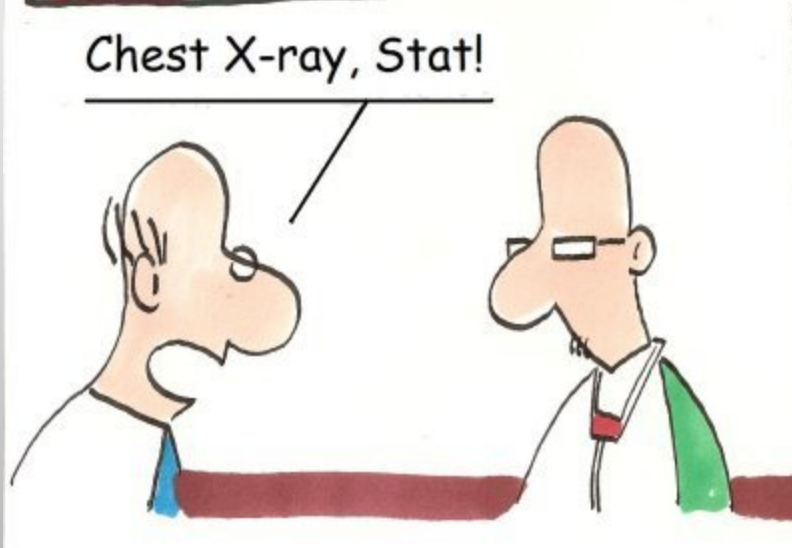


Page Dr. Attler, Stat!



Get me Nitro, Stat!

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Chest X-ray, Stat!



Hey Stat? Get me a Coke?

Sure.

Tom Quilley

# Presentation Highlights

- The Meaning of Stat...literally speaking
- As the World Turns
- Manitoba Amazing Race...Planes, Trains & Automobiles
- The Supporting Evidence...Data
- Specimen Collection & Requisition Completion...not the inquisition

# STAT literally speaking....

- The word STAT is a medical term used to imply urgent or rush.
- The term is derived from the Latin word "statim" which means immediately

# As the World Turns

**Operating Room Blood Delivery Turn Around Time Study  
College of American Pathologists Q-Probe Study of 12,647  
units of blood components in 466 institutions.**

**David A. Novis, MD; Richard C. Friedberg, MD; Stephen W. Renner, MD; Frederick A.  
Meier, MD; Molly K. Walsh, PhD**

*Archives of Pathology and Laboratory Medicine: Vol. 126, No. 8, pp. 909–914 2002*

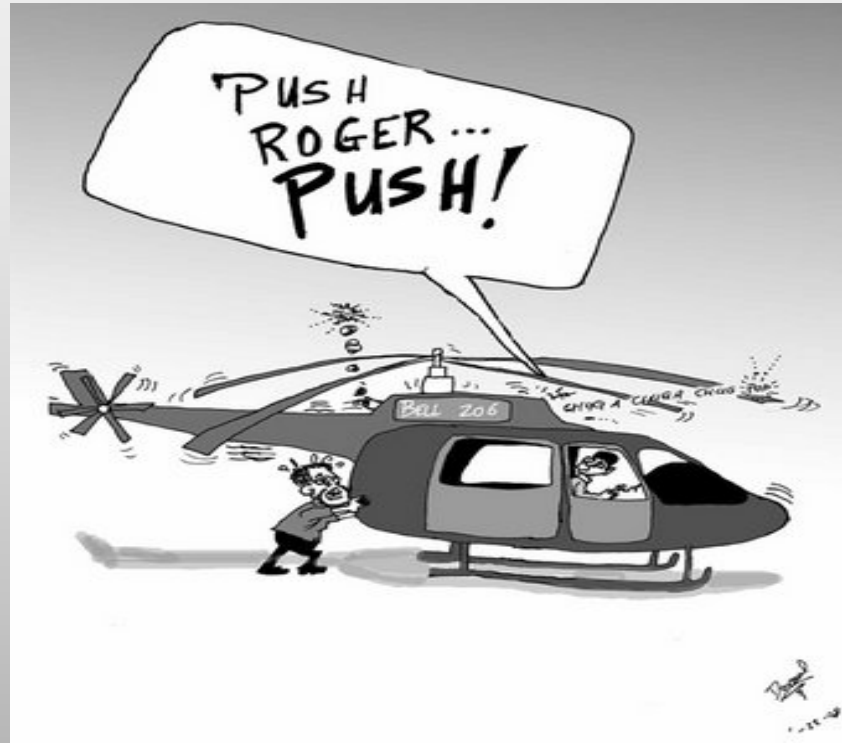
# The Study

- Q-Probes study designed to:
  - provide a snapshot of laboratory practice
  - allow participants to determine benchmarks of quality (appropriate to own sites)
- Study participants: 466 public and private institutions
  - US (n = 444), Canada (n = 9), Australia (n = 8), the United Kingdom (n = 4), and Spain (n = 1).
- Data was collected prospectively on the times elapsed for blood bank staff to fill nonscheduled emergent orders from hospital ORs for red blood cell (RBC) products, fresh frozen plasma (FFP), and platelets (PLTs).
  - Participants submitted data on 12,647 units of RBCs, FFP, and PLTs

# The Study Findings

- The median aggregate:
  - request-to-retrieval TAT ranged from 30 to 35 minute
  - request-to-arrival TATs ranged from 33 to 39 minutes.
- Most of the TAT was consumed by events occurring prior to rather than after release of components from blood banks.
  - Post-release phases of delivery - release-to-retrieval (<10 minutes) & retrieval-to-arrival in OR (<5 minutes).
- Shorter prerelease TATs were associated with having:
  - surgical schedules with patients' names and procedures available to blood bank personnel prior to surgeries
  - adequate specimens in the blood bank
  - completed type-and-screen/crossmatch before requests for blood components were submitted to blood banks.

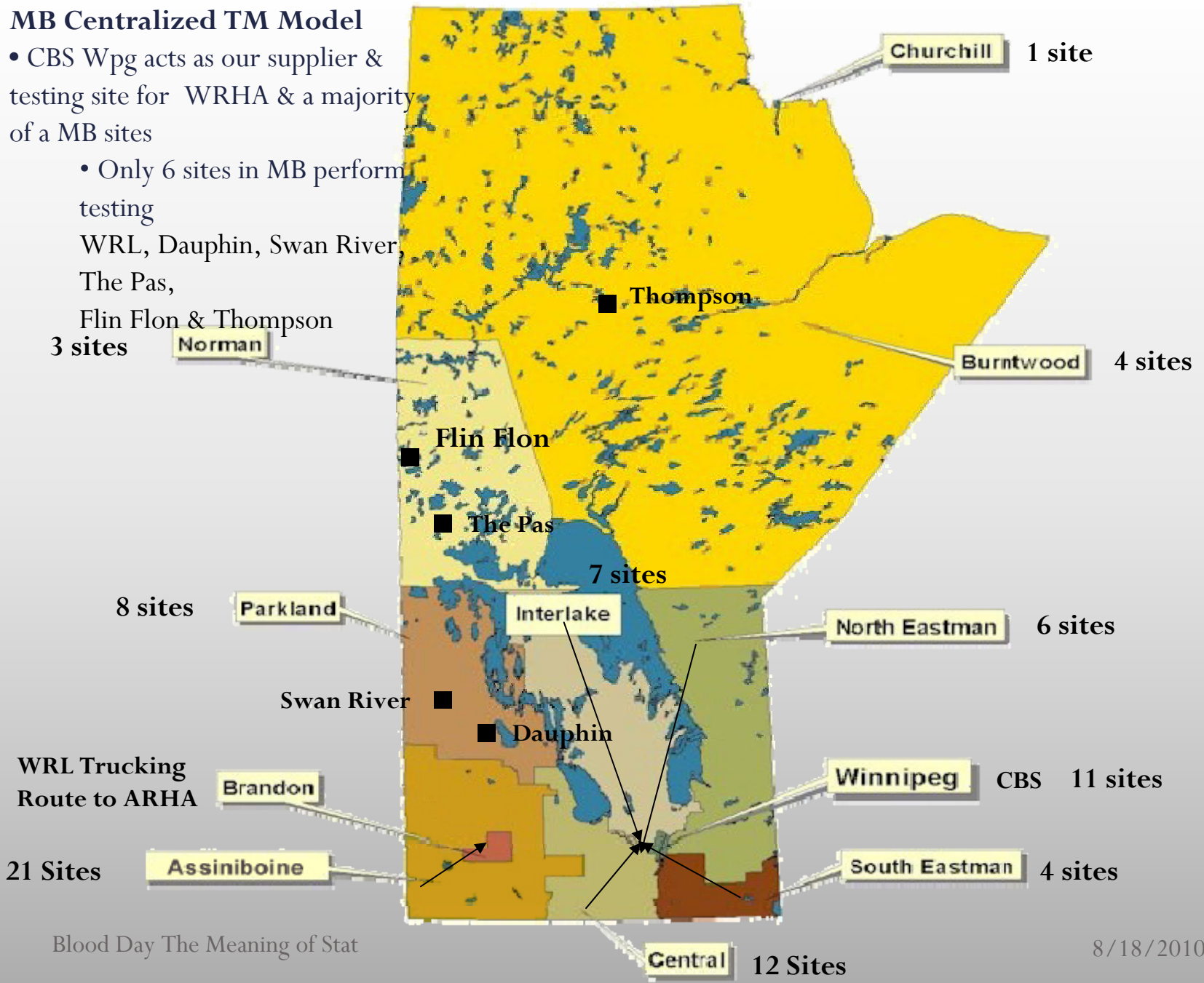
# Manitoba Amazing Race....Planes, Trains & Automobiles



### MB Centralized TM Model

- CBS Wpg acts as our supplier & testing site for WRHA & a majority of a MB sites

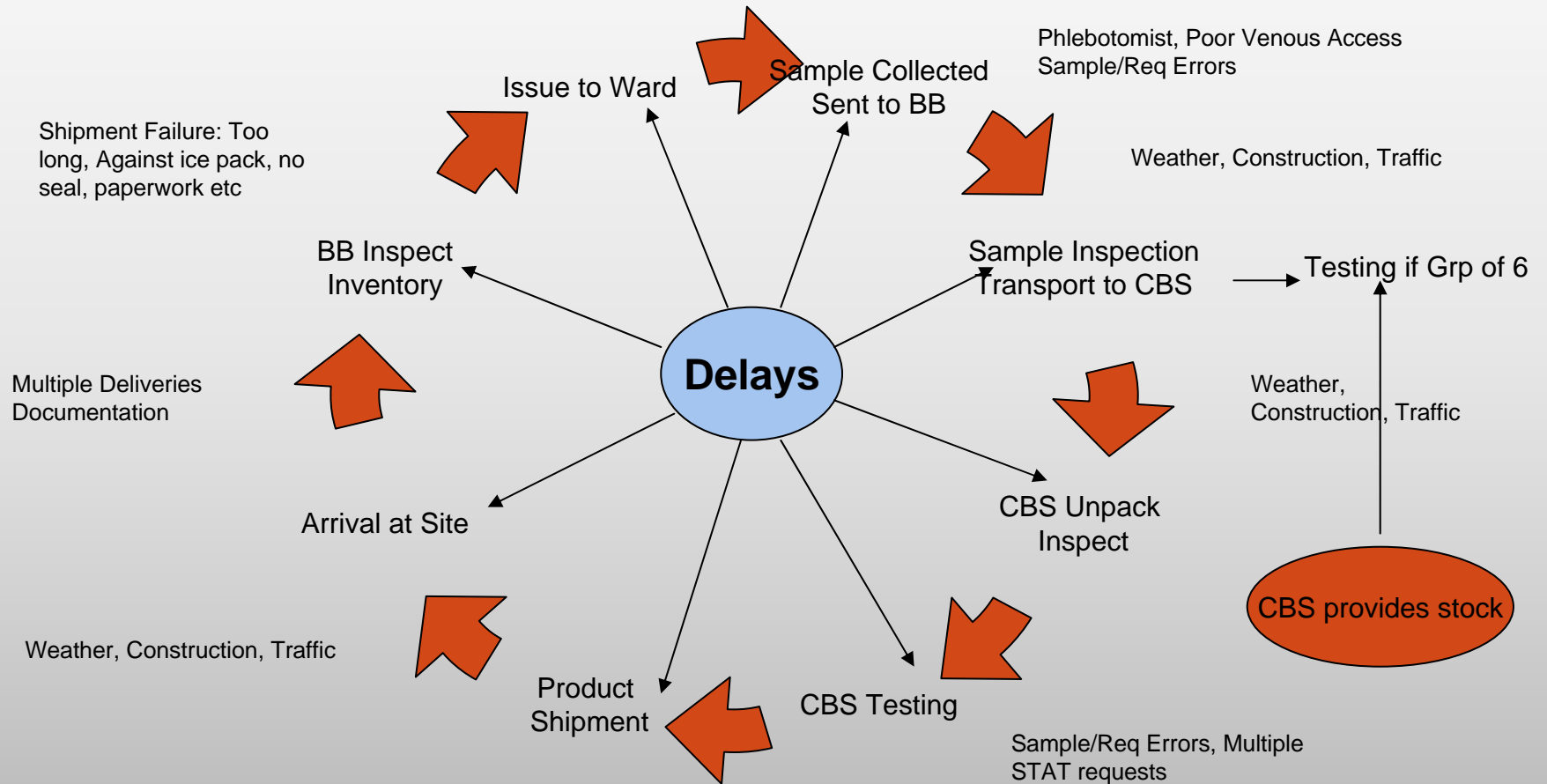
- Only 6 sites in MB perform testing  
WRL, Dauphin, Swan River, The Pas, Flin Flon & Thompson



# Manitoba Amazing Race....Planes, Trains & Automobiles

- Delivery of patient samples and blood product provincially is reliant on:
  - Courier
  - Taxi
  - Other sources – Greyhound, Airlines (Perimeter, Calm Air etc) hospital staff, family members
- Currently there is no IT system in place that links our supplier and facility blood banks
- Documentation of all TM processes (sample collection, send-out, blood product receipt, visual inspection, issue & final disposition) are manual.

# Manitoba Amazing Race....Planes, Trains & Automobiles....Delays.....



# The Supporting Evidence.....Data

# The Supporting Evidence..... Data

- There is a perception that it takes time to complete the “cycle”.
- TAT studies have revealed this to be true.
- The number of STAT requests have increased.
  - CBS current workload is nearing the 50% STAT overall.
- CBS & other testing sites are experiencing difficulty in triaging samples for testing – which STAT is more STAT than the other.

# The Supporting Evidence.....Data

- Further manual methodologies are used for:
  - CBS STAT testing bench
  - DSM crossmatching sites, except for:
    - Thompson – uses Ortho Gel Cards
    - WRL – implementing automation in the near future (compatible to CBS routine bench automation)
- CBS does use automation for Routine Testing
  - Rationale: the 80/20 rule – 80% of samples should be routine whereas 20% STAT

# The Supporting Evidence.....Data

<b>DATA</b>	<b>2001</b>	<b>2003</b>
<b>#STATS</b>	<b>184</b>	<b>483</b>
<b>Time: Collection to BB</b>	<b>17.3</b>	<b>19</b>
<b>Time: BB to Pickup</b>	<b>13.0</b>	<b>12.0</b>
<b>Time: Courier to CBS</b>	<b>23.2</b>	<b>24</b>
<b>CBS TAT</b>	<b>63</b>	<b>58</b>
<b>Time: XM, pack, courier, arrival at SBGH</b>	<b>42</b>	<b>51</b>
<b>Total Time</b>	<b>2 hrs 58 minutes</b>	<b>2 hrs 44 minutes</b>

# The Supporting Evidence.....Data

Year	# Routine Samples	# STAT Samples	% STAT
2005-2006	24,388	8,174	33.5%
2006-2007	25,747	10,097	39.2%
2007-2008	24,156	12,026	49.8%

## Further still, DSM Transportation Trial Project revealed:

- Less than 50% of units are transfused within 1 hour
- Less than 60% of units are transfused within 2 hours
- 41% of total units requested are transfused
- 59% of total units requested are returned to CBS

What does this all add up to.....



# Specimen Collection & Requisition Completion

.....**Not the Inquisition**



# Specimen Collection & Requisition Completion

- There are opportunities within the system for improvement & most are or have been asked about, such as:
  - Why not get an IT system?
  - Perhaps more sites should perform testing?
  - Why not automate more of the crossmatching sites?
  - Maybe there should be a dedicated transportation system?
  - We need more staff, money, equipment and most important TIME!
- Some are valid concerns but difficult to attain.
- One very simple solution starts at the root....the sample & requisition

# Specimen Collection & Requisition Completion

- Whether a site uses the CBS Request for Blood Components or their site/region DSM Blood Transfusion Service, the sample & requisition are the starting point in the transfusion chain.
- Along with the performance of positive patient identification; a properly labeled sample with fully completed requisition provides the transfusion service with a road map on how to proceed with the clinical request

# Specimen Collection

- A sample label must include:
  - Patient first & last name
  - PHIN or unique identifier only if PHIN unavailable
  - Date of Collection (dd/mmm/yyyy)
  - Facility
  - Phlebotomist initials on the sample tube (not mandatory but DO provide a visual reference of a positive patient identification check)
  - All information **MUST** be transcribed using indelible ink

# Requisition Completion

- The requisition must include:
  - Patient first & last name
  - PHIN or unique identifier only if PHIN unavailable
  - DOB
  - Physician
  - Facility name
    - If blood components are to be shipped to a different facility this **MUST** be indicated in order to ensure timely & accurate delivery
  - Phlebotomist printed name, initials & classification
  - Date (dd/mmm/yyyy) & time of collection
  - Treatment Order (Type & Screen/Crossmatch/DAT /ABO/Rh only etc)
  - Diagnosis & reason for transfusion/infusion **AND**.....

# Requisition Completion

- The INTENDED DATE & TIME of the transfusion/infusion!
- This piece of information helps to triage & prioritize the sample upon receipt.
- It seems like a simple thing yet it does give MEANING to the STAT.

Thank you

Questions?

