

# “Improving nursing & pharmacy communication by reducing missing meds”



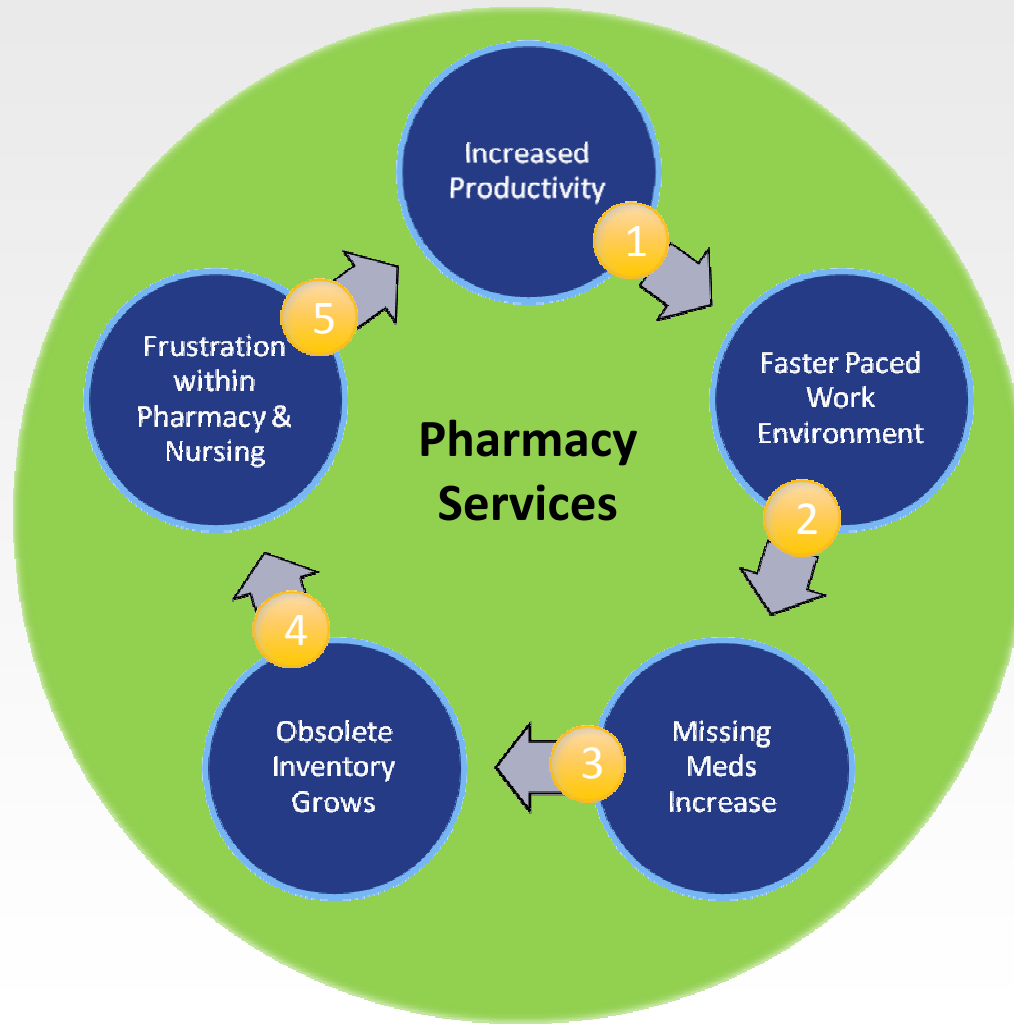
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# About Riverside Methodist Hospital

- 1058 Licensed Bed, Tertiary Care Facility
  - Nursing Magnet Status
  - Flagship of OhioHealth Health System
- Pharmacy Services – Service Model
  - Hybrid distribution – highly automated
  - Decentralized Pharmacists
  - 6 million doses dispensed annually
  - Average 5,800 new orders/day
  - Pharmacists/Technician Ratio = 1:1.4



# The Familiar Pharmacy Challenge



## ... and the impact on the Staff Nurse

- Nursing Phone Calls
  - >400 calls received daily from nursing
    - Estimated time/call = 3 minutes
- Missing Medication Requests
  - 150 – 175 Requests Daily
    - Estimated rework time/request = 2 minute
- Staff Nurse Frustration correlation
  - Where is the medication?
  - Multiple requests for the same dose
  - “How do I explain this to my patient?”



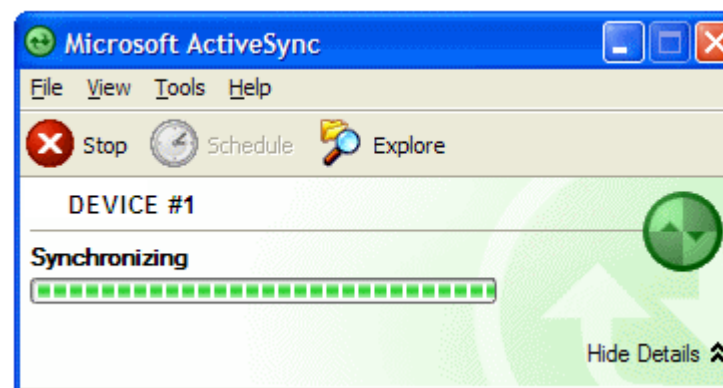
*Nurses use alternate pathways to meet patient care needs... BUT at a price... rework and increased frustration.*

# Our journey to improve service for nursing

- Round #1 (Pre-2002)
  - Medication TurnAround Time Studies
- Round #2 (2002-2003 w/Microsoft Access DB)
  - Medication TurnAround Tracking
- Round #3 (2005 w/3<sup>rd</sup> Party)
  - Tracking and Reporting – Not Real Time
- Today – 2010
  - ... looking for something new



Patient Name: John Doe  
Medication: Metoprolol  
Start Time: 10/1/02 17:32  
Delivered Time: 10/1/02 17:32  
h: \_\_\_\_\_



# The Requirements (based upon our experience)

- The process to capture information must be seamless
  - Consistency for nursing information
- The data must be real-time
  - Most accurate information for nursing
- The software must be web-based
  - No extra resources to update/maintain PCs
  - Available on all nursing PCs, future possibility of importing into another nursing application



*Building a better mouse-trap  
... one that SERVES us!*

# The Outcome ... MedBoard™ was Created

- We have migrated through 3 versions of MedBoard™ to our current state
  - Below is the MedBoard™ “Dashboard”

**MEDBOARD** Nov 07, 2009 16:21  
You are logged in as: \*

Main Page Search Scan Barcodes Administration My Account

Select View:  Select Nursing Unit/Group:  17 records

Cat	Priority	Patient	Room and Bed	Nursing Unit	Drug	Location	Status	Timer	Delivered at	Order	Cancel
	Routine	Bret Kimple	63501-1	1S	ALBUMIN 25%	1S	Returned	0		<a href="#">009246650</a>	✕
	Now	Marcel Uppelschoten	64201-1	1H	SODIUM BICARB 8.4%	1H	Cancelled	0		<a href="#">009246750</a>	✕
	Now	Marianne Baldetti	6104-01	6T	PROMETHAZINE 25 MG TAB	Pharmacy	Order checked by	2		<a href="#">18896572</a>	✕
	Now	Vito Sardella	82701-1	7T	SODIUM BICARB 8.4%	Pharmacy	Being Prepared	4		<a href="#">009246744</a>	✕
	Routine	Randy Shilling	5264-01	5N	ONDANSETRON 2 MG/ML INJ	Pharmacy	Awaiting RPh Cher	4		<a href="#">18896564</a>	✕
	Routine	Nathaniel Freese	53901-1	5N	CEFTRIAZONE in DILUENT	5N	Delivered at Destin	5		<a href="#">009246765</a>	✕
	Stat	Stefan Kolata	83801-1	5N	ACETAZOLAMIDE SOD	Pharmacy	Awaiting RPh Cher	6		<a href="#">009246706</a>	✕
	Stat	Lester Robbins	5264-01	5N	DPHENHYDRAMINE 50 MG/ML INJ	Pharmacy	Checked/Awaiting	6		<a href="#">18896566</a>	✕
	Now	Jed Leonard	64101-1	7T	CISATRACURIUM	7T	Cancelled	7		<a href="#">009246397</a>	✕
	Stat	Kit Wells	54201-1	5N	HEPARIN	5N	Delivered at Destin	7		<a href="#">009240417</a>	✕
	Routine	Graham Hood	54201-1	1H	EPOETIN ALFA (PROCRIT)	Pharmacy	Delivery in Proce:	7		<a href="#">009246657</a>	✕
	Now	Kirk Dornon	74401-1	1H	LOPERAMIDE	Pharmacy	Order checked by	7		<a href="#">009238217</a>	✕
	Stat	Thomas M...	63501-1	1S	DESMETAMPHE...	1S	Returned	7		<a href="#">000046747</a>	✕

■ = Overdue ■ = Approaching Overdue ■ = In Progress ■ = Delivered, Cancelled, Returned

MedKeeper Copyright 2007-2009

# How MedBoard™ Works

- HL7 Message Interface is an option
- PC & Handheld software



Medication Prepared by Technician



Medication Checked by Pharmacist



Medication Delivered

Medication Leaves Pharmacy



Medication Label Prints



- Barcode Scans
- Wireless Data Transmission
- Real-Time Communication



# Riverside Success Model

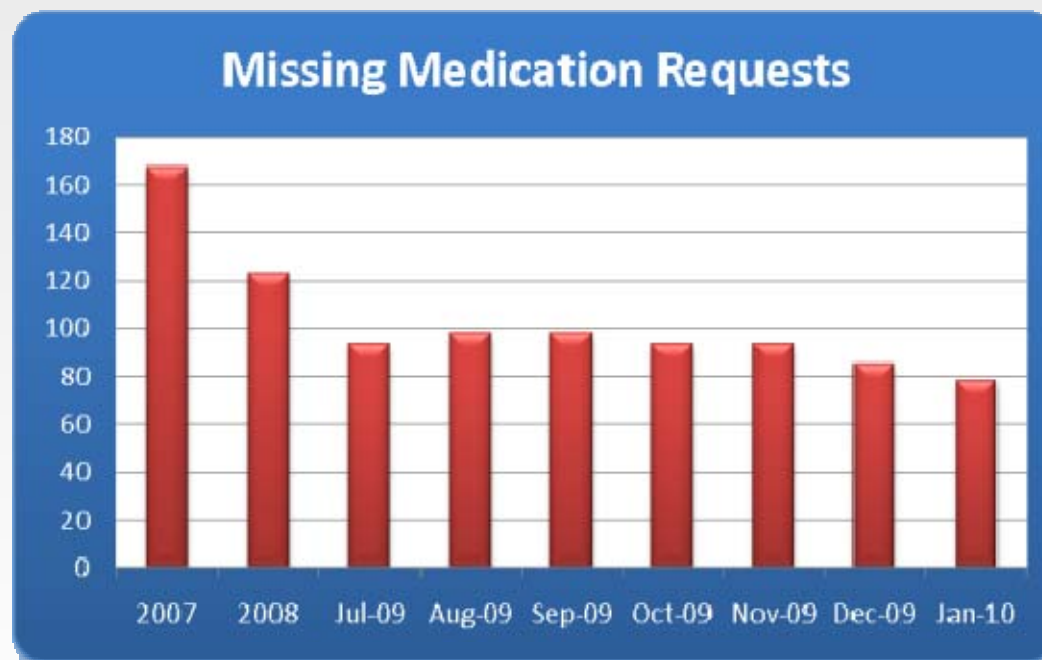
- **Improving Nursing – Pharmacy Communication**
  - Strong alignment and consistency within leadership
  - Monthly Pharmacy-Nursing Meetings
    - High Value & Productive
  - Joint Accountability
  - Willing to tackle the “difficult issues”
  - Honesty
- **Quality & Safety Improvements**
  - Focus was on improvement... not nursing staff reductions





# The Riverside Story

- **Missing Medication Requests**
  - 53% Reduction in requests since 2007 baseline
  - Nursing-Patient Time Increase: 1082 Hours annually
  - **Take Away: Improves the quality of patient care**

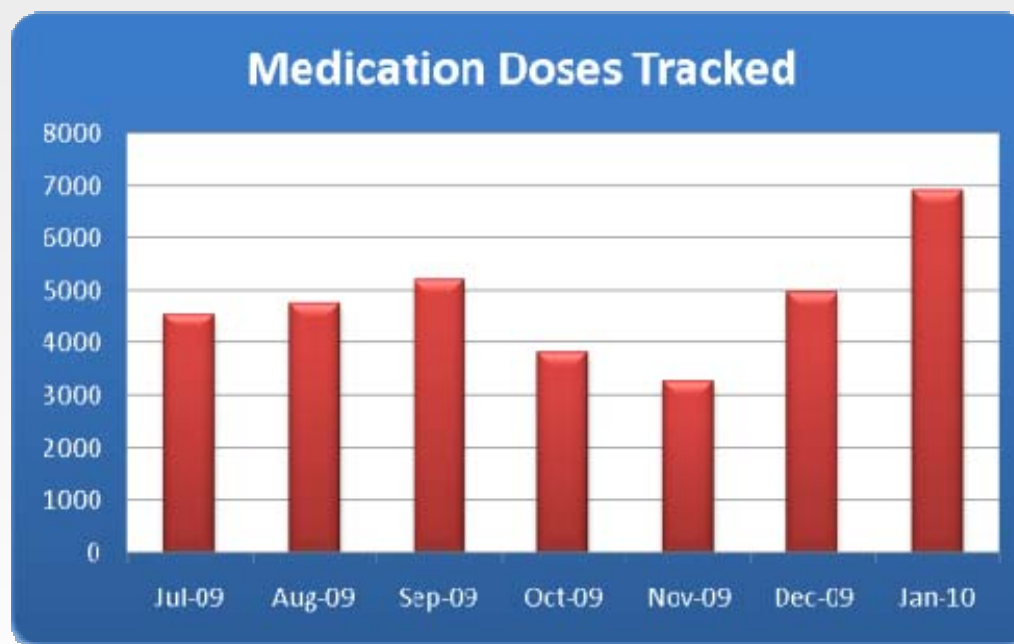


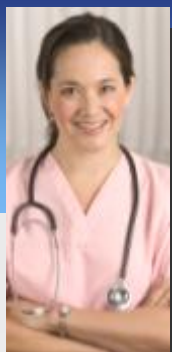


# The Riverside Story

- **Medication Turn-Around Time**

- “I need the medication to be at the right place at the right time.”
- “My staff has recognized the improvements in the pharmacy delivery service.”
- **Take Away: Nurses spend less time searching and more time with the patient**

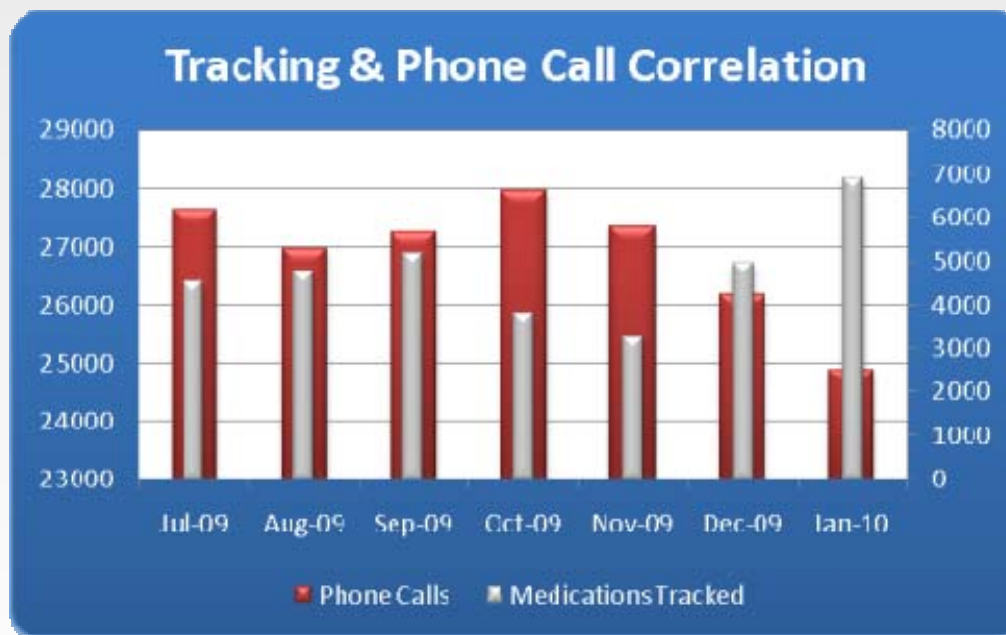




# The Riverside Story

- **Phone Calls**

- Consistently 27,000 calls/month
- Indirect correlation with medications tracked
- Nursing time savings = +++
- **Take Away: Nursing is spending more time at the patient bedside versus coordinating medication deliveries**



# It's all about Patient Care...

- **Nursing Leadership and Direction**
  - Consistent Theme: “We need our nurses to spend more time at the patient bedside.”
- Pharmacy Initiative 2010 (one component)
  - Modification of the medication delivery system
    - Current State:
      - 130+ Delivery Locations
      - Medication Room Based
    - Future State:
      - 1,000 Delivery Locations
      - Patient Room Based



*How many places do your nurses have to visit to retrieve patient medications?*

# Pharmacy Services: 2010 Goals

- Reduce time from med fill to delivery to patient care areas by 50%
- Reduce nursing initiated missing dose requests by 50%
- Reduce phone calls to our main communications desk by 20%
- Deliver 100% of non-refrigerated/non-controlled meds to patient med servers in the patient room



*Putting together the puzzle for improved safety, quality, and service.*

# Recommended Questions to ask ...

- How many missing medication requests are sent to pharmacy on a daily basis?
- What is the medication turn-around time?
  - How are we defining turn-around time?
  - Is the data based upon a small sampling or extensive data?
- How many places are medication secured on your nursing units?
- Do you have patient safety events because medication delivery delays?



# Contact Information

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