

A Brief History of Medication Reconciliation at Scripps Mercy Hospital

David J. Shaw, M.D.
Director of Medical Education
Scripps Mercy Hospital

The Background

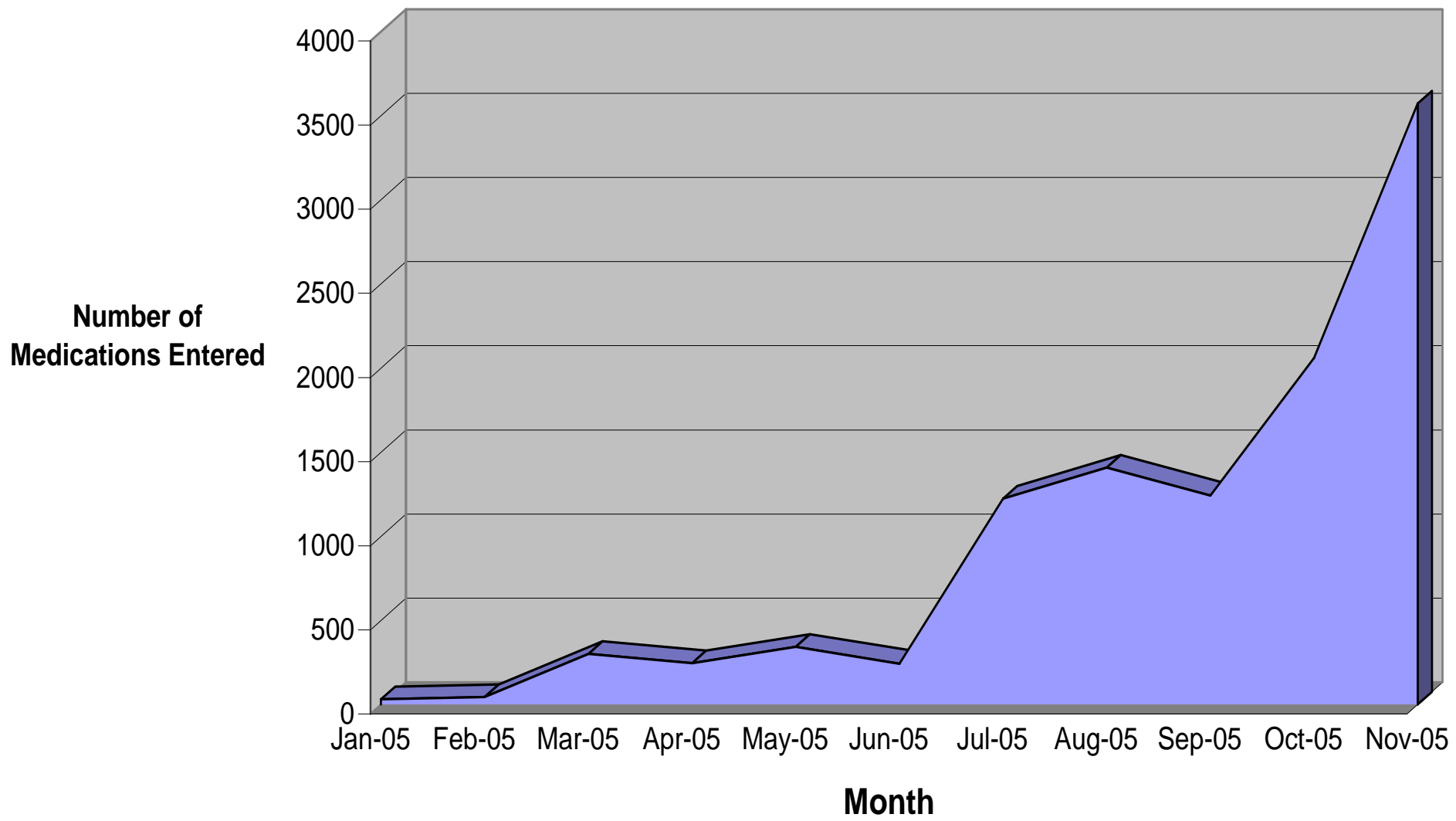
- 2002. The hypothesis: Patients with limited English proficiency will have poor medication compliance compared with English proficient patients
- Two year grant from The California Endowment: Investigate hypothesis, and to look at solutions for improving compliance
- The baseline study: 126 consecutive patients with CV disease, divided evenly between EP and LEP.
 - 50% compliance at 48-72 hours after hospital discharge in **both** groups
 - 35% compliance at 30 days after hospital discharge in **both** groups

The Intervention

- Factors contributing to non-compliance:
 - lack of clear instructions about what medications to take at time of discharge
 - **failure to reconcile pre-admission medications with medications at discharge**
- Intervention phase: 86 patients
 - Given simple verbal and written instructions:
 - Which medications to continue as before
 - Which medications to adjust dose and/or frequency
 - Which medications to discontinue
 - Which new medications to add
 - Included simple purpose, and reconciled with preadmission medication list

The Results

- Intervention group:
 - Compliance increased to 90% at 48-72 hours post-discharge
 - Compliance increased to 80% at 30 days post-discharge
 - $P < 0.001$ compared with non-intervention group
- Associated with:
 - 40% reduction in admissions for any cause over next 6 months
 - elimination of readmissions due to medication non-compliance
- Based on results, with grant support from VHA Health Foundation, created an electronic discharge process:
 - Developed medication Translator (to be demonstrated)
 - Deployed Translator at Scripps Mercy over the past 12 months



- Goal number 6: Develop a process during 2005, for full implementation by January, 2006, to reconcile medications across the continuum of care
- Scripps Mercy Hospital responds to this initiative with a hybrid process (“Paper or Plastic”)
- A “green” medication reconciliation form is developed, piloted on one floor, and subsequently deployed to all patient care units at Mercy San Diego
- A medication reconciliation technician supports this process, and inputs the pre-admission medications into the Translator

Where we are now

- All patient care units, including Emergency Department, required to complete the pre-admission medication list to the best of their ability.
- List is maintained in **one location** (vs. up to 4 separate locations prior to initiation of this project)
- All caregivers contribute collaboratively to the “list”
- At each transition of care the physician is asked to reconcile pre-admission medications with current hospital medications
- At the time of discharge, the reconciliation process is repeated.

- Whereas the paper process requires copying data if a change is made, and generating a “clean” copy for the patient at the time of discharge, the electronic process permits:
 - continuous updates
 - clear, simple instructions translated with a click into the patient’s own language
 - prescription writing
 - communication to caregivers at all points of care
 - the ability to create a longitudinal medication record that can be used by, and updated by, all caregivers at all points of care

- **Internal Strategies**
 - Help physicians deploy Translator in their offices (new California Endowment Grant application)
 - Develop Translator in second language (Vietnamese)
 - Deploy Translator at Scripps Mercy Chula Vista (presentation to Faculty and Housestaff in Family Medicine done)
- **External Strategies**
 - Publications in Joint Commission Perspectives and Joint Commission BENCHMARK
 - Presentations at IDX CIO-PAG Forum

- External strategies (continued)
 - Presentation at VHA National Leadership Conference, May, 2005
 - VHA WebEx Presentation, September 15, 2005
 - Package for potential external users being developed, including cover letter, specification sheet (graphic and bullet points), and demonstration version of Translator in a flat file
 - Put the package on the websites of: VHA, IHI, Joint Commission, ScrippsHealth



Patient Label

Pre-Admission Medication List

donnie Duck -- MRN: 230245 -- DOB: 12/02/1958 -- Admission: 08/29/2005

Medication Allergies: No medication allergies reported by patient [El paciente reporta no alergias a medicamentos]

Below is a listing of patient's PreAdmission medications. Please mark appropriate instructions for each medication.

Medication	Dosage	Route	Frequency	Medication Instructions:
Toprol [Metoprolol] Parameters: Note to MD:	50 mg Last Taken:	PO	1x/Day	<input type="radio"/> Continue <input type="radio"/> Discontinue Change Dose _____ Change Frequency _____
Valium [diazepam] Parameters: Note to MD:	2 mg Last Taken: 8/29	PO	As Needed every day	<input type="radio"/> Continue <input type="radio"/> Discontinue Change Dose _____ Change Frequency _____
Benadryl	25 mg	PO	At Bedtime	<input type="radio"/> Continue <input type="radio"/> Discontinue Change Dose _____ Change Frequency _____

Medication Instructions effective

 **Demonstration Patient**
Medication Allergies: No medication allergies reported by patient [El paciente reporta no alergias a medicamentos]

Primary Care Physician: Stanley Amundson MD **Cardiologist:** David Shaw MD

Continue taking these medications as you were:

Medication	Dosage/ Frequency	AM	Lunch	Dinner	Bed- time	Next Dose	Purpose
Norvasc [Amlodipine]	5 mg. 1x/Day						Lowers Blood Pressure
Lisinopril [Lisinopril]	10 mg. 1x/Day						Prevent Congestive Heart Failure
Aspirin [Aspirin]	81mg 1x/Day						For Your Heart

CHANGES have been made to the following medications, please follow NEW INSTRUCTIONS:

Medication	Dosage/ Frequency	AM	Lunch	Dinner	Bed- time	Next Dose	Purpose
Aldactone [Spironolactone]	25 mg. 1x/Day						Prevent Congestive Heart Failure
Zocor [Simvastatin]	80 mg. :: once daily at bedtime/una vez que diario en la hor						Lowers Cholesterol

These are NEW MEDICATIONS, please have filled at your pharmacy:

Medication	Dosage/ Frequency	AM	Lunch	Dinner	Bed- time	Next Dose	Purpose
Lasix [Furosemide]	80 mg. 1x/Day						Treats Fluid Retention

[Aspirin]	Aspirin	81mg						For Your Heart
[Aspirin]		1x/Day						

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Lasix [Furosemide]	80 mg. 1x/Day						Treats Fluid Retention
Coreg [Carvedilol]	25 mg. 2x/Day						Prevent Congestive Heart Failure
Zaroxolyn [Metolazone]	2.5 mg. :: Three times a week/Tres veces una semana						Treats Fluid Retention

STOP taking ALL medication listed below:

Lopressor

Las Instrucciones De Sus Medicamentos @

 **Demonstration Patient**
Alergias a Medicamentos: No medication allergies reported by patient [El paciente reporta no alergias a medicamentos]

Doctor Familiar: Stanley Amundson MD **Cardiologo:** David Shaw MD

Favor de seguir tomando estas medicamentos:

Medicamento	Dosis / Frecuencia	En la Manana	Media Dia	Cena	Antes de Dormir	Tomar la proxima dosis:	El Proposito
Norvasc [Amlodipine]	5 mg. 1x/Diaria						Bajar la Alta Presion Sanginea
Lisinopril [Lisinopril]	10 mg. 1x/Diaria						Prevenir Insuficiencia Cardiaca Congestiva
Aspirin [Aspirin]	81mg 1x/Diaria						Para Su Corazon

Los siguientes medicamentos HAN SIDO CAMBIADOS, favor de seguir los NUEVOS CAMBIOS:

Medicamento	Dosis / Frecuencia	En la Manana	Media Dia	Cena	Antes de Dormir	Tomar la proxima dosis:	El Proposito
Aldactone [Spironolactone]	25 mg. 1x/Diaria						Prevenir Insuficiencia Cardiaca Congestiva
Zocor [Simvastatin]	80 mg. :: once daily at bedtime/una vez que diario en la hor						Bajar los Niveles del Colesterol

Estos son sus NUEVOS MEDICAMENTOS, favor de surtirlos en su Farmacia:

Medicamento	Dosis / Frecuencia	En la Manana	Media Dia	Cena	Antes de Dormir	Tomar la proxima dosis:	El Proposito
Lasix	80 mg. 1x/Diaria						Eliminar Liquido

[Lisinopril]	1x/Diaria						Cardiaca Congestiva
Aspirin	81mg						Para Su Corazon
[Aspirin]	1x/Diaria						

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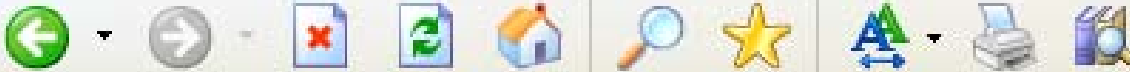
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Coreg [Carvedilol]	25 mg. 2x/Diarias						Prevenir Insuficiencia Cardiaca Congestiva
Zaroxolyn [Metolazone]	2.5 mg. :: Three times a week/Tres veces una semana						Eliminar Liquido

Favor de parar de tomar los siguientes medicamentos:

Lopressor



My Medications @ 09/10/2004

Lion King | DOB: 02/04/1940

Medication Allergies: Penicillin
[Penicilina], Sulfa Drugs [Medicamentos Sulfa]

PCP: Carol Cheney MD

CARDIO: David Shaw MD

Lipitor: 10mg -- 1x/Day

Aspirin: 325mg -- 1x/Day

Plavix: 75mg -- 1x/Day

Toprol XL: 100mg -- 1x/Day