Medication Reconciliation on Hospital Discharge

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Objectives

- Define medication reconciliation as a component of medication management
- Describe the impact and importance of medication reconciliation on discharge
- Present a standardized process for medication reconciliation on discharge, discharge instructions and discharge summary
- Suggest strategies to focus resources on high risk patients, high risk drugs, and high risk conditions for intervention opportunities

MEDICATION RECONCILIATION

For use on Admission, Discharge & Transfer

LIST BELOW ALL OF THE PATIENT'S HOME MEDICATIONS INCLUDING OTC AND HERBAL MEDS

Source of Medication list: (check all used)

- [X] Patient/Family recall or list
- [ ] Medication list from home/facility attached
- [ ] Other *(source)*:
- [ ] Unable to obtain medication list at this time
- [ ] Medications sent to Pharmacy

Initiated by: _____, RN

Date/Time: _____

MEDICATION NAME, Dose and Frequency (PRINT)	To be completed by hospital staff: Continue During Stay (circle one)	To be completed by hospital staff: Continue At Discharge (circle one)	Behavioral Health: # of pills prescribed	Behavioral Health: # of Refills Given
1.	Y N	Y N		
2.	Y N	Y N		
3.	Y N	Y N		
4.	Y N	Y N		
5.	Y N	Y N		

ADDITIONAL MEDICATIONS TO BE TAKEN AFTER DISCHARGE	# of pills prescribed	# of Refills Given
1. SEE ABOVE		
2. Return to medications as previously listed		
3. See attached list		
4. Cipro 500 mg twice daily Rx @ home		
5.		

Tried & can't take

most recent

[redacted]

Depakote 500 mg
" 250 mg (NO) Brings me Down too much

PROZAC 10-30 — (NO

NEURONTIN 300 mg) NO
100 mg

confused/tired XANAX 0.5mg — NO
LYRICA 50mg — NO
Lamictal 100 mg — NO
LORAZEPAM 0.5mg — NO
Keppra — 500mg — NO
Topamax — 25 — NO —
Prometrium 200mg (NO)
~~Vimpat~~

Allergies

PROTONIX — 40mg (NO) Allergy
CAINE family — can't Breath
Pen. Deriv's Reliase
Ampicillin — Rash
BENADRYL NO — HONEY NO
PREDNISON — Agitated
Aciphex 20mg — (NO Weird feeling
Diclofenac — Potas — 50mg — NO —

Medication Management

- **Safe and effective use of prescription and over-the-counter medications**
- **Components**
  - **Medication history**
  - **Medication reconciliation**
  - **Medication adherence**

http://www.nextstepincare.org/left_top_menu/Provider_Home/ accessed 8/25/10

Medication Management

- **Medication history**
  - **up-to-date listing of all prescription and over-the-counter medications, herbal supplements and vitamins**
- **Medication Reconciliation**
  - **comparison of previous medication list to new one**
    - **resolve discrepancies**
    - **identify and resolve medication related problems**
  - **should occur whenever there is a care transition, or change in medications or diagnosis**
- **Medication Adherence**

Medication Discrepancies

- **Unintended or unexplained differences among documented medication lists across different sites of care. Examples are:**
  - **Omissions**
  - **Duplications**
  - **Dose/frequency/route of administration errors**
  - **Drug name discrepant/incorrect**

Medication Discrepancies & Adverse Drug Events (ADEs)

- ADE: “an injury resulting from medical intervention related to a drug.”
- Estimated 70% of patients experience an actual or potential unintended discrepancy at hospital discharge, which can then precipitate an ADE
- Preventable ADEs identified within hospitals, nursing homes, and ambulatory care range between 27% and 50%
- ADEs and issues with medication reconciliation across care settings are major drivers for hospital readmission

Bates et al., 1995;
Classen et al., 1997; Gandhi, 2003; Gurwitz et al., 2003, 2005
Zhang et al., 2009

“Medication Discrepancies upon Hospital to Skilled Nursing Facility Transitions”

- A cross-sectional study was conducted among two skilled nursing facilities to look at the prevalence, type and source of medication discrepancies upon admission to the facility from hospital
- Description of the prevalence of medication discrepancies in the SNF setting
  - **495/2,319 admission medications were reviewed as discrepancies (21.3%)**
  - **104/199 discharge summary and the patient care referral form did not match for at least one medication in SNF admissions (52.3%)**

Tija J, Bonner A, Briesacher B, et al. Medication discrepancies upon hospital to skilled nursing facility transitions. *J Gen Intern Med.* 2009;(24)5:630-5.

“Medication Discrepancies upon Hospital to Skilled Nursing Facility Transitions”

- **Description of the sources of those discrepancies**
  - **Both dose & route were frequently omitted or discrepant (42%)**
  - **Drug name discrepancy (29.3%)**
  - **Frequency of administration (30.5%)**
- **Description of the classes of medications with discrepancies on admission to SNF**
  - **GI (15.6%), Cardio (12.7%), Opioids (12.3%), Neuropsych (7.9%), Hypoglycemics (7.7%), Anticoagulants (6.9%)**

Tija J, Bonner A, Briesacher B, et al. Medication discrepancies upon hospital to skilled nursing facility transitions. *J Gen Intern Med.* 2009;(24)5:630-5.

"Medication Discrepancies upon Hospital to Skilled Nursing Facility Transitions"

Discussion

- **Medication regimens did not match between hospital discharge summary and patient care referral form in over 50% of all SNF admissions.**
  - **Partially explained by dictation & transcription errors known to occur in discharge summaries**
  - **Incorrect medication information: hospital physicians should ensure that medication information in the discharge summary is correct at time of discharge**

Tija J, Bonner A, Briesacher B, et al. Medication discrepancies upon hospital to skilled nursing facility transitions. *J Gen Intern Med.* 2009;(24)5:630-5.

“Medication Discrepancies upon Hospital to Skilled Nursing Facility Transitions”

Discussion

- **Discharge summary may be completed up to 24 hours in advance and changes in therapy may not be updated →disconnect in timing**
- **Importance in documentation: e.g. document REASON for changes to previous medication regiments to aid in managing the handoff to the PCP at the appropriate time**

Tija J, Bonner A, Briesacher B, et al. Medication discrepancies upon hospital to skilled nursing facility transitions. *J Gen Intern Med.* 2009;(24)5:630-5.

Impact of Medication Related Problems

- **Increased illness & death**
  - **Estimated 180,000 life threatening or fatal ADEs per year in ambulatory care older persons in U.S. & ≥ 50% may be preventable**
- **Increased hospitalizations**
  - **3-19% of admissions due to ADEs**
- **High costs**
  - **$5 to $7 billion in U.S. due to ADEs**
  - **MRPs in elderly ambulatory patients estimated at $177 billion/year in U.S.**

Gurwitz, 2003; Colman, 2006; Ernst, 2001

Medication Discrepancies & Adverse Drug Events (ADEs)

- **ADE: an injury resulting from medical intervention related to a drug**
- **Medication discrepancies are an important contributor to ADEs among hospitalized patients**
  - **3-28% of admissions are due to ADEs** (Classen, 1997)
- **ADE's are costly** (Classen, 1997; Bates, 1997)
  - **LOS ↑ by 4.6 days => $4,700**
  - **Preventable ADE's in a 700 bed teaching hospital cost about 2.8 million/year**
- **Admission to ICU increases the risk of unintentional discontinuance of medications for chronic diseases**

Classen DC et al., Adverse drug events in hospitalized patients. JAMA1997; 277:301-06.
Bates DW, Spell N, Cullen DJ, et al. The costs of adverse drug events in hospitalized patients. JAMA 1997;277:307-311.
Bell CM, et al. Association of ICU or hospital admission with unintentional discontinuation of medications for chronic diseases. JAMA. 2011;306(8):840-847

"Emergency Hospitalizations for Adverse Drug Events in Older Americans"

- **2007-2009 National adverse drug event (ADE) data**
  - **Looked at frequency & rates of hospitalization of older persons after emergency dept visits due to ADEs**
  - **5077 cases with 99,628 emergency hospitalizations for ADEs**
  - **2/3 hospitalizations due to *unintentional overdoses***
  - **Highest risk medications (implicated in 67% of hospitalizations)**
    - **Warfarin (33.3%) – alone or in combination with others**
    - **Insulins (13.9%) and oral hypoglycemic agents (10.7%)**
    - **Oral antiplatelet agents (13.3%)**

Budnitz, D, et al. Emergency hospitalizations for adverse drug events in older Americans. NEJM 2011;365:2002-12.

Impact of Medication Reconciliation on Discharge

- **Medication reconciliation, as part of a package of interventions, decreased the rate of medication errors by 70% and reduced adverse drug events by over 15%** **(Whittington, 2004)**

- **Medication reconciliation reduced discharge medication errors from 90% to 47% on a surgical unit and from 57% to 33% on a medical unit of a large academic medical center** **(Murphy, et al., 2009)**

Whittington J, Cohen H. OSF Healthcare's journey in patient safety. Quality Management in Health Care 2004;13(1):53-59.
Murphy EM, Oxencis CJ, Klauck JA, et al. Medication reconciliation at an academic medical center: implementation of a comprehensive program from admission to discharge. *Am J Health Syst Pharm. 2009;66:2126-31*

Impact of Medication Reconciliation on Discharge

- **Common elements of successful interventions**
  - ***Targeting of a high-risk subgroup***
    - **Elderly**
    - **Patient on high risk drugs**
    - **History indicates health at risk**
  - ***Institutional support***
  - ***Performing the intervention in a defined population***
    - **Patients to/from a nursing home or home care agency**
    - **Elective surgical admission**

Mueller SK, et al. Hospital-based medication reconciliation practices: A systematic review. Arch Intern Med 2012

Impact of Medication Reconciliation on Discharge

Intensive Pharmacist Intervention

- **Medication histories and reconciliation on admission and discharge**
- **Patient and provider medication counseling during hospitalization**
- **Communication with the primary care physician on discharge**
- **Communication with the patient 2 months after discharge**
  - **Results**
    - **16%⇩ the odds of all hospital visits (odds ratio, 0.84; 95% CI, 0.72-0.99)**
    - **47% ⇩ in emergency department visits**
    - **80% ⇩ in drug related readmissions in the 12 months after hospital discharge**

Gillespie U, Alassaad A, Henrohn D, et al. A comprehensive pharmacist intervention to reduce morbidity in patients 80 years or older: a randomized controlled trial. *Arch Intern Med. 2009;169(9):*894-900.

Impact of Medication Reconciliation on Discharge

A medication reconciliation project (Safe Med) started in 2007 at an integrated health care system to (1) improve the accuracy of pre-admission medication list (PAML) within 24 hours of admission for patients admitted through the emergency department (ED) and (2) enhance patient education through telephone calls by pharmacists to the patients most at risk for ADEs or readmission.

ACCURACY OF PAMLs: In the October 2007-May 2008 period, RN-generated PAMLs were accurate 16% of the time versus 89% for the June 2008-December 2010 period, when they were generated by pharmacy technicians. Medication errors classified as having the potential to cause moderate or serious harm decreased from 13.17% to 1.50%.

POSTDISCHARGE EDUCATION OF COMPLEX PATIENTS BY PHARMACISTS:

By 2009, the Safe Med pharmacist program was fully staffed, thereby enabling the program to contact nearly 100% of the 10,174 patients meeting the Safe Med criteria from January 2009 through December 2010. When compared with historical controls, the Safe Med intervention was associated with a statistically significant reduction in 30- and 60-day readmissions, ADE-associated 30- and 60-day readmissions, and 30- and 60-day ED visits.

CONCLUSIONS:

ED-deployed pharmacy personnel can enhance the accuracy of PAMLs and may thereby reduce in-hospital ADEs. The post-discharge intervention by pharmacists with the most complex patients may reduce ADEs following hospital discharge. The interventions may compensate for discontinuities in care and lessen the attendant threats to patient safety.

Gardella JE, Cardwell TB, Nnadi M. Improving medication safety with accurate preadmission medication lists and postdischarge education. Jt Comm J Qual Patient Saf. 2012 Oct;38(10):452-8.

Drivers for Improvement

- The Joint Commission – NPSG 03.06.01
- Centers for Medicare & Medicaid Services
- Meaningful Use of Electronic Health Records
- Partnerships for Patients

The Discharge Medication Reconciliation Process

The Patient is at the Center of the Process!

- **Four Components**
  - **Verification**
  - **Clarification**
  - **Documentation**
  - **Transfer/Transitions**
- **Performed by**
  - **Prescribers, nurses – most common**
  - **Pharmacists – less common**

The Discharge Medication Reconciliation Process

Verification of medications upon discharge

- **Obtain the verified medication history list and medication reconciliation performed on admission. Multiple sources should be used which can include:**
  - **Patient**
  - **Family, caregivers**
  - **Primary care provider**
  - **Other healthcare providers – nursing home, assisted living facility, home healthcare agency**
  - **Community pharmacies**
  - **Past medical records**
  - **Electronic Health Information Exchange (HIE)**

The Discharge Medication Reconciliation Process

Verified medication history list obtained on admission should include:

- **Prescribed medications**
- **“As needed” medications**
- **Over-the-counter medications**
- **Herbals/nutraceuticals**
- **Vitamins and other supplements**
- **Dose, route, frequency, date & time of last dose**

The Discharge Medication Reconciliation Process

Clarification

- **Discharge orders are reconciled (compared) to: medication history list, admission orders, admission medication reconciliation, transfer orders and interim orders**
- **Confirm whether differences are intended or unintended**
  - **Intended: purposeful changes, omissions, additions based on patients clinical status or formulary**
  - **Unintended: medication discrepancy requires communication with prescriber and resolution of problem**

The Discharge Medication Reconciliation Process

Documentation

- **Nature of the discrepancy and the resolution should be clearly documented**
- **Final "one source of truth" discharge medication list**
  - **Should be shared with the patient, caregivers, primary care provider or receiving facility or agency**

Medication Reconciliation Forms

- **Paper – based**
- **Electronic**
- **Hardwire medication rec into order sets**
  - **Embed into workflow, ensure one “live” list**
  - **Consistent implementation in all areas**
  - **Incorporate CPOE (computerized prescriber order entry) and CDS (clinical decision support) rules where appropriate**

MEDICATION RECONCILIATION ORDER FORM

List all patient medications prior to assessment. Include OTCs & alternative meds (herbals). (Alternative meds will not be continued on admission).

Before an outpatient receives any medication as part of their test or procedure, list all of their current home medications looking for allergies, interactions, duplications, or other concerns. A complete reconciliation is required only if the patient is to be admitted to the hospital.

Allergies: _____

DO NOT USE ABBREVIATIONS: .#, #.0, IU, MS, MgSO4, MSO4, QD, QOD, U

Information Source: _____ Patient _____ Family _____ Primary Care Physician

_____ Patient's Pharmacy(s) _____ (See Back)

_____ MAR from _____ _____ Other, specify _____

☐ Check here if patient is not currently on any medication.

Medication Name	Dose	Route	Frequency	Last Dose		Physician Decision: Continue? Circle one	
				Date	Time		
1						Y	N
2						Y	N
3						Y	N
4						Y	N
5						Y	N
6						Y	N
7						Y	N

On the lines below, enter orders for new medications that the patient isn't currently taking or changes to their current regimen.

Completed by _____ Nurse Signature _____ Date/Time _____
(print name)

I have reviewed this list of patient medications and to the best of my knowledge, the additional medications I have ordered will not result in any adverse reaction(s).

Medication Reconciliation Challenges

- Lack of standardized process, clear ownership
- Communication failures
- Coordination gaps
- Non-formulary medications and therapeutic interchanges
- Lack of standardized medication list “source of truth” document

The MATCH Work Plan

Medications at Transitions and Clinical Handoffs (MATCH) Toolkit for Medication Reconciliation

Engage the patient and caregiver in the medication reconciliation process

- **Foundational leadership and team**
- **Establish charter**
- **Determine scope**
- **Define roles and responsibilities**
- **Develop flow chart of current processes**
- **Integrate process into workflow**
- **Develop/redesign medication reconciliation process**
- **Evaluate process**
- **Audit and educate**

Gleason KM, Brake H, Agramonte V, Perfetti C. *Medications at Transitions and Clinical Handoffs (MATCH) Toolkit for Medication Reconciliation*. (Prepared by the Island Peer Review Organization, Inc., under Contract No. HHSA2902009000 13C.) AHRQ Publication No. 11(12)-0059, August 2012. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/qual/match/index.html

IPRO Care Transitions Project

- **Integrating Care for Populations and Communities**
- **Improving transitions: Hospital – Skilled Nursing Facility (SNF)**
  - **Goal is to decrease hospital readmissions from SNF**
  - **Convened workgroup comprised of 8 SNFs and 3 hospitals in one upstate NY county**
    - **SNF: Administrators, Medical Directors, Directors of Nursing**
    - **Hospital: Discharge Coordinators, Hospitalist Physicians, Pharmacists**
  - **Bring care transition issues to table monthly – IPRO assists with root-cause analysis of identified problems, suggests evidenced-based interventions**

IPRO Care Transitions Project

Improving transitions: Hospital – SNF

- **Issue: Time consuming Medication Reconciliation process on SNF side post hospital discharge due to medication discrepancies**
- **Process:**
  - **Measure: SNF completed Medication Discrepancy Tool upon readmit to SNF from hospital**
  - **Analyze: SNF shared completed MDTs with hospital pharmacy and IPRO**
    - **IPRO analyzed % discrepancies and categories per hospital**
    - **Hospital pharmacies investigated each discrepancy**

Medication Discrepancy Tool (MDT)

- Adapted from Dr. Eric Coleman, Care Transitions Intervention (CTI) program to identify & characterize medication discrepancies that occur during transitions
- Discrepancies identified are characterized as either patient level or system level to capture wide range of transition related medication problems
- Facilitates resolution of these problems by describing appropriate action steps and cross setting feedback
- Tool can be found at: www.ipro.org/index/ct-tools-intervention-resources

Medication Discrepancy Tool (MDT)

Adapted from Medication Discrepancy Tool at www.caretransitions.org

Medication	Causes and Contributing Factors *List all that apply from list below (By Number)*	Resolution *List all that apply from list below (By Number)*
1.		
2.		
3.		
4.		
5.		

Causes and Contributing Factors:	Resolution:
<u>Discrepancies (Patient Level)</u> 1. Adverse drug reaction or side effect 2. Intolerance 3. Did not fill prescription 4. Patient feels they do not need prescription 5. Money/financial barriers 6. Intentional non-adherence (*"I was told to take this but I chose not to"*) 7. Non-intentional non-adherence (Knowledge deficit – *"I don't understand how to take this medication"*) 8. Performance deficit (*"Maybe someone showed me, but I can't demonstrate to you that I can"*) <u>Discrepancies (System Level)</u> 9. Prescribed with known allergy/intolerance 10. Discharge instructions incomplete/ inaccurate/ illegible (**includes use of "resume all meds" order**) 11. Duplication (*Taking multiple drugs with the same action without any*	1. Clinician contacted primary provider and clarified medication regimen 2. Discussed potential benefits and harm that may result from non-adherence 3. Provided resources and information to facilitate adherence 4. Addressed performance/knowledge deficit 5. Encouraged patient to call their doctor 6. Primary provider will address problem at next visit

MDT Tracking – Discrepancies Identified by Receiving Facilities

Receiving facility (SNF, HHA, etc.)	Date of Hospital DC	Medication	Cause and contributing factors (list all that apply)				
			Ordered medication conflicts with patient's listed allergies	Discharge instructions incomplete/inaccurate/illegible/ does not match hospital paper work (includes use of "resume all meds" order)	Duplication (multiple drugs ordered with the same action without any rationale)	Dose, frequency, route discrepancy	Drug name discrepant/incorrect
			No=0, Yes=1	No=0, Yes=1	No=0, Yes=1	No=0, Yes=1	No=0, Yes=1
EGC	10/18/2011	Hydralazine	0	1	0	0	1
EGC	10/18/2011	Imdur	0	1	0	0	1
EGC	10/18/2011	Synthroid	0	1	0	0	1
EGC	10/18/2011	Flush protocol	0	1	0	0	1
EGC	10/12/2011	Triamcinolone Cream	0	1	0	0	1
EGC	10/12/2011	Aranesp	0	1	0	0	1
EGC	10/12/2011	Iron	0	1	0	0	1

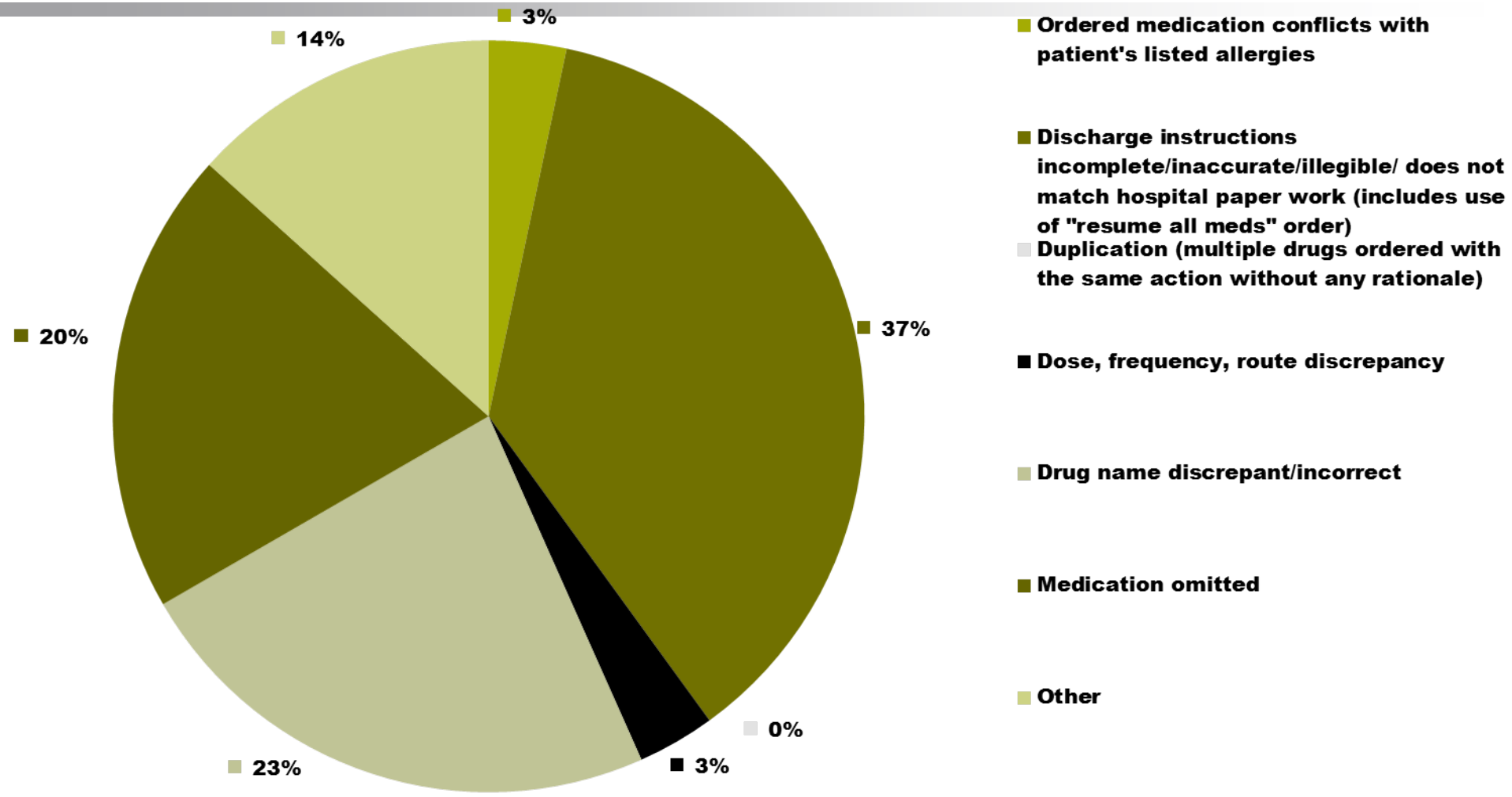
MDT Tracking – Discrepancies Identified by Receiving Facilities

Medication omitted	Other	Resolution	Delay in starting medication	Lenth of delay (days)	Comments
No=0, Yes=1	No=0, Yes=1		No=0, Yes=1		
0	0	Notified & clarified with hospital	0	0	Written as Hydrochlorothiazide
0	0	Notified & clarified with hospital	0	0	Written as Humidor
0	0	Ordered clarified by MD	0	0	
0	1	Spoke with RN for protocol	0	0	Did not know their protocol
0	0	Called pharmacy to verify order	1	1	Vesicare cream ordered for breasts, abdominal folds and groin, but no such cream
0	0	Held until lab results sent	1	7	Not sure when given last
0	0	Clarified with NP	0	0	Not sure if NP wanted iron or vitamin B complex

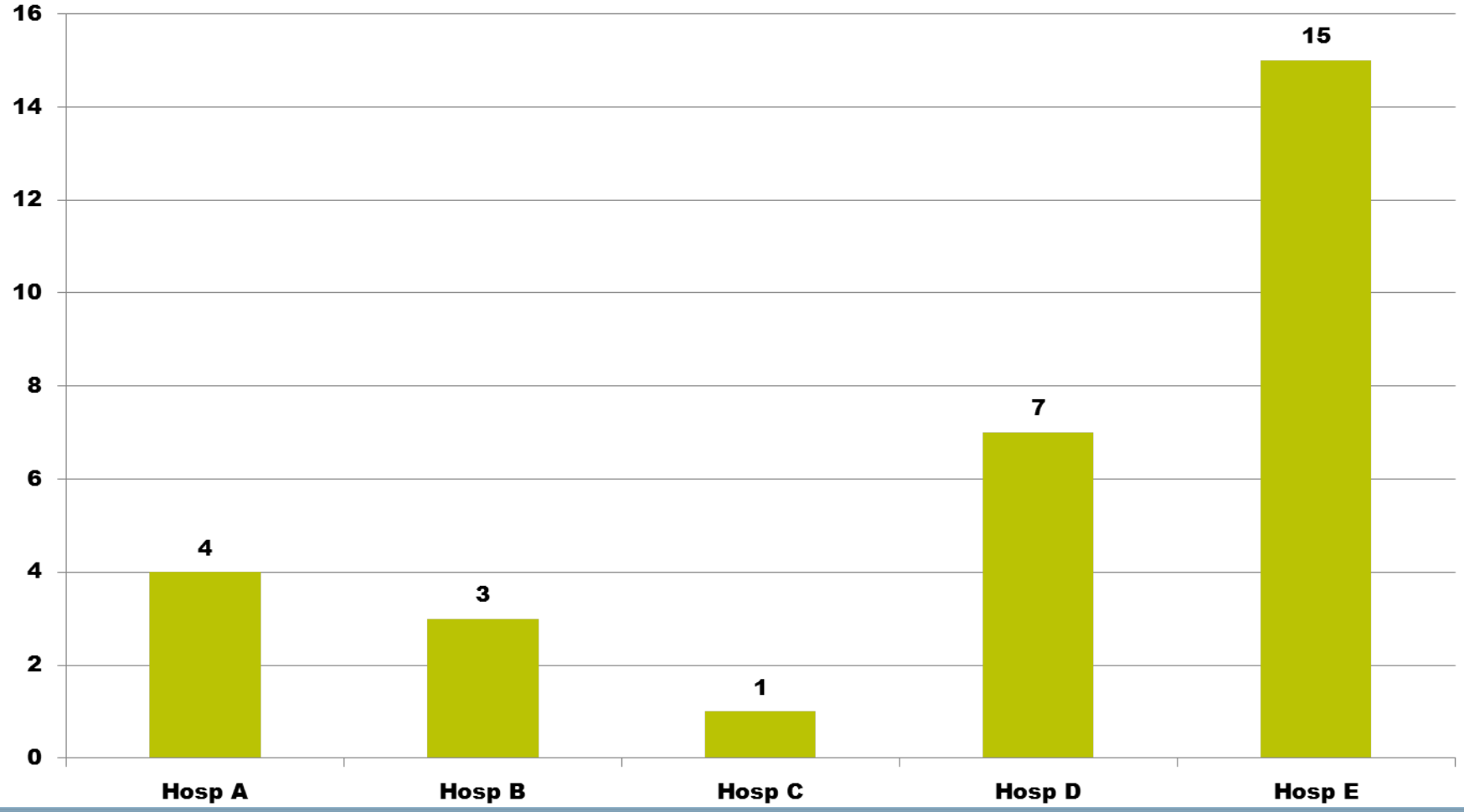
MDT Tracking – Discharging Hospitals Aggregate

Start date	End date			Ordered medication conflicts with patient's listed allergies	Discharge instructions incomplete/inaccurate/illegible/ does not match hospital paper work (includes use of "resume all meds" order)	Duplication (multiple drugs ordered with the same action without any rationale)	Dose, frequency, route discrepancy	Drug name discrepant/incorrect	Medication omitted
7/1/2011	11/1/2011		Hosp A	1	0	0	0	0	0
			Hosp B	0	2	0	1	0	0
			Hosp C	0	1	0	0	0	0
			Hosp D	0	1	0	0	0	6
			Hosp E	0	7	0	0	7	0
			Total count	1	11	0	1	7	6
			%	3.33%	36.67%	0.00%	3.33%	23.33%	20.00%

Percentage of Discrepancy Categories Across Hospitals 7/2011 - 10/2011 (reported from 2 SNFs)



Number of Discrepancies per Hospital
7/2011 - 10/2011 (n=30 reported from 2 SNFs)



Improving Transitions: Hospital – SNF

- **Results:**
  - **Most discrepancies were minor, i.e. lotrimin vs. lotrisone**
  - **Major discrepancies involved antihypertensives, anticoagulants, duplication of therapy/formulary issues**

- **Action:**
  - **Dialogue between Hospitals and SNFs based on cases reviewed revealed opportunities for improvement**
  - **Development of "gold standard" recommendations for medication reconciliation at hospital discharge based on community best practices and literature**

Case analysis identifies opportunities for system improvements

Medication Reconciliation - Recommendations

- **Examine current medication reconciliation process**
  - **Identify and close failure gaps**
  - **Incorporate information technology solutions**
- **Clinical pharmacist intervention upon admission and discharge for those patients identified as high risk**
- **OTC, vitamins and other supplements taken at home should be:**
  - **Included on patients admission medication list**
  - **Assessed for continuation upon discharge, and**
  - **Listed on discharge medication instructions if clinically appropriate**

Medication Reconciliation - Recommendations

- **Include post-acute monitoring instructions for high risk medications in the discharge instructions**
  - **High risk drugs or drug class:**
    - **Antithrombotics/anticoagulants**
    - **Antiseizure medications**
    - **Cardiovascular agents**
    - **Electrolyte-disturbing medications (diuretics)**
    - **Corticosteroids**
    - **Hypoglycemics**
    - **Opioids**
    - **Psychoactives**

Examples of Drug Categories and Drugs Associated with Preventable Adverse Drug Events (pADE)

Drug Category/Drug		pADE
Analgesics	NSAIDs (ibuprofen, naproxen, etc.)	GI bleeding, renal impairment, hypertension
	opiates	CNS depression, constipation, cardiac events, falls
Antibiotics		Various – CNS, skin eruptions, drug interactions, GI and cardiac events
Anticholinergics – see "Beer's List"		Dry mouth or eyes, blurred vision, confusion, delirium, memory impairment, dizziness, drowsiness, hallucinations, urinary retention, constipation, ↑heart rate, falls
Anticoagulants	Warfarin	Bleeding, drug interactions
	Heparin, other	Bleeding, blood dyscrasias
Cardiovascular agents	digoxin	High blood levels – GI upset, nausea, diarrhea, visual disturbances, low heart rate
	diuretics, vasodilators	hypotension
Central Nervous System agents	benzodiazepines	Sedation, falls
	antipsychotics	Anticholinergic effects (some); parkinsonism
Hypoglycemics	Insulin, sulfonylureas (glyburide, glipizide, etc)	hypoglycemia

Medication Reconciliation - Recommendations

- **Format medication list on discharge instructions to include:**
  - **Comparison with pre-admission medications :**
    - **STOP taking the following medications**
    - **CONTINUE taking these medications**
    - **START taking the following medications**
  - **Route, dose, frequency**
  - **Purpose**
  - **Last dose given, next dose due**
  - **Cautions, follow up (for high risk drugs, etc.)**

Medication Reconciliation - Recommendations

- **Develop a system to provide rationale for medication changes in the discharge summary**
- **Develop and implement a systematic and standardized education program regarding medication reconciliation and discharge summaries for appropriate staff**
- **Review and revise medication reconciliation policies and procedures as needed**

Specifications Manual for Inpatient Quality Measures Discharges 01/1/13 -6/30/13 - CMS

- **NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE**
  - **Measure Set: Venous Thromboembolism (VTE)**
  - **Set Measure Set ID #: VTE-5**
  - **Performance Measure Name: Venous Thromboembolism Warfarin Therapy Discharge Instructions**
  - **Description: This measure assesses the number of patients diagnosed with confirmed VTE that are discharged to home, home care, court/law enforcement or home on hospice care on warfarin with written discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, and information about the potential for adverse drug reactions/interactions**

Discharge Instruction Example – Warfarin

CONTINUE taking the following medications:

Warfarin 4mg: Take 1 tablet by mouth every day

Purpose: Anticoagulant (blood thinner)

LAST dose taken: 3/8/12 at 5pm

NEXT dose due: 3/9/12 at 5pm

CAUTION: Contact doctor upon signs/symptoms of bleeding or blood in urine, stool, or sputum. Ask doctor or pharmacist about foods that can affect warfarin and before taking any over-the-counter medications or supplements.

FOLLOW-UP: An INR test needs to be completed 3-7 days after discharge

Summary

- A thoughtfully implemented medication reconciliation process can reduce the risk of patient harm due to medication discrepancies on transitions across settings of care
- Community dialogue is essential for system improvement
- Discrepancy case analyses reveal opportunities for improvement
- Application of evidence-based interventions can decrease ADEs and readmissions

Questions

Comments

Feedback

Resources

MATCH Medication Reconciliation Toolkit: http://www.ahrq.gov/qual/match/

Society of Hospital Medicine – Marquis Medication Reconciliation Resource Center

http://www.hospitalmedicine.org/Content/NavigationMenu/QualityImprovement/QIResourceRooms2/MARQUIS/Medication_Reconcili.htm

Resources

The Joint Commission: http://www.jcrinc.com/Quality-and-Safety-Risk-Areas/Medication-Safety/

Institute for Safe Medication Practices: http://www.ismp.org/

Agency for Healthcare Research and Quality: http://www.ahrq.gov/qual/patientsafetyix.htm

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