Taking on ADEs to Take Down Readmissions

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Medication Management and Readmissions Purpose

To improve patient outcomes and reduce readmissions by integrating medication therapy management (MTM) and pharmacists into care transition community settings

Building the Case: Adverse Drug Events (ADEs) and readmissions focus

- One in five (20%) patients with Medicare are readmitted within 30 days of hospital discharge
- 35% within 90 days
- 17 billion dollars annually (~$9600/readmission)
- Adverse Drug Events (ADEs) implicated in ~7000 deaths annually

Compared to inpatients, little data is available on ADEs for patients post discharge related to medications.

Jencks et al. Rehospitalizations among Patients in the Medicare Fee-for-Service Program. N Engl J Med 2009;360:1418-28. Beckett RD, Sheehan AH, Redden JG. Factors Associated with Reported Preventable Adverse Drug Events: A Retrospective, Case-Control Study. *Ann Pharmacotherapy. 2012;46(5):634-641.*

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The Cost of Errors

- 1999 Institute of Medicine (IOM) report
  - To Err is Human

  44,000–98,000 people/year die as a direct result of medical errors

- 2006 IOM report
  - Preventing Medication Errors

  1.5 million preventable ADEs annually in the United States

  Each costs ~$8,750

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Financial Bottom Line

- Hospital Readmission Reduction Program (HRRP) Penalties for readmissions Section 3025 of Affordable Care Act
  - Hospitals with higher than expected readmission rates for Heart Failure (HF), Acute Myocardial Infarction (AMI) and Pneumonia targeted
  - 1% FY2013
  - 2% FY2014
  - 3% FY2015 added Chronic Obstructive Pulmonary Disease (COPD)/Hip & Knee FY2017 adding Coronary Artery Bypass Graft (CABG)

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Financial Bottom Line (cont.)

- Hospital Acquired Condition (HAC) penalties begin FY2015 (Patient Safety Indicator (PSI) 90 and Infection domains)
  - Publicly reported on Hospital Compare in December 2014
- Value Based Purchasing (VBP) FY2015 funded by reduction of base operating payments by 1.5%
  - 35% Clinical care
  - 25% Patient/Caregiver experience of care/care coordination
  - 25% Efficiency/cost reduction
  - 15% Safety

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That which is measured, tends to **improve**.

That which is measured **publicly**, tends to **improve faster**.

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Data-Driven Improvement-ADE Measures

- Targeted Population of Focus (PoF)
  - 65 and older patients with Medicare
  - Multiple chronic conditions
  - 3 or more medications (includes anticoagulants, opioids, diabetic agents)

Data-Driven Improvement-ADE Measures (cont.)

- Reduce percentage of ADEs per 1,000 *screened* patients with Medicare
  - # patients screened
  - # ADE/potential ADE (pADE) of patients screened by care setting
  - # patients on a high-risk medication (to include anticoagulants, opioids, diabetic agents) within the screened population by setting
  - # readmissions associated with ADE within the screened population by care setting
- Number of interventions with demonstrated improvement

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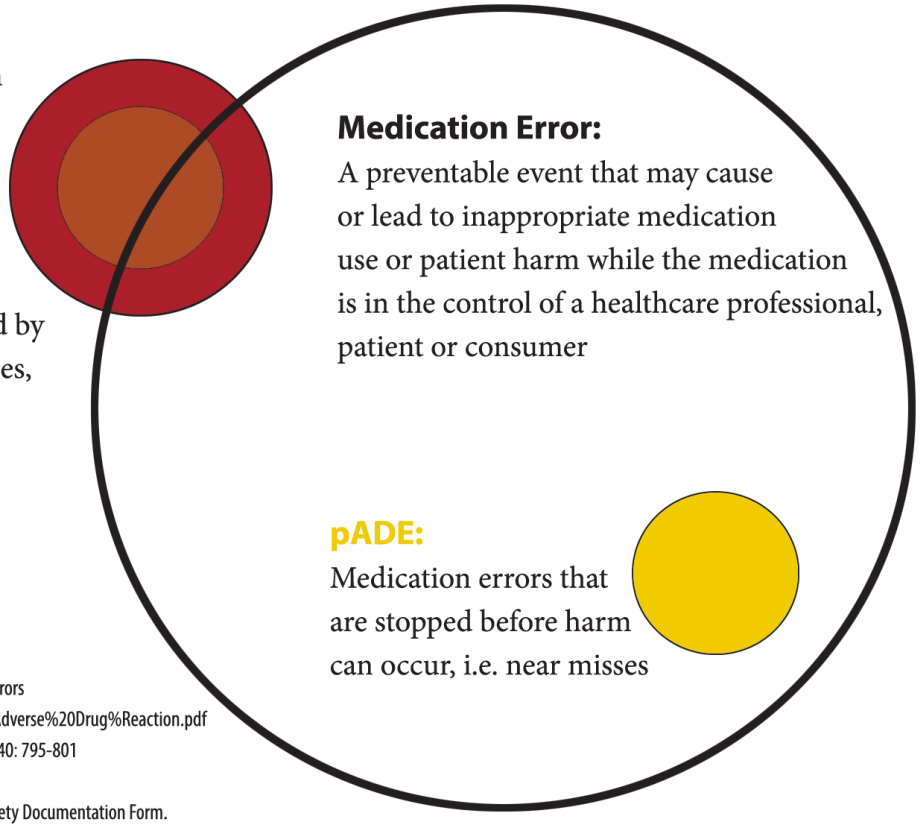
Define ADE/pADE

Medication Safety:
Management & Prevention of Drug-related Harm

ADE:
Injury resulting from the use of a drug

Adverse Drug Reaction (ADR):
Harm directly caused by a drug at normal doses, during normal use (e,g, side effects)



Medication Error:
A preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of a healthcare professional, patient or consumer

pADE:
Medication errors that are stopped before harm can occur, i.e. near misses

Source:
http://www.nccmerp.org/aboutMedErrors
http://www.pbm.va.gov/vamedsafe/Adverse%20Drug%Reaction.pdf
Nebecker et al Ann Intern Med 2004: 140: 795-801

Medication Therapy Intervention & Safety Documentation Form.
User Manual (v 7.0, updated 4/6/12). Steven Chen, PharmD, USC School of Pharmacy.

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Sample ADE/pADE Tracking Form

pADE/ADE Tracking Form

pADE = potential adverse drug event (error/event stopped before harm occurs, a "near miss")
ADE = adverse drug event (error/event occurs, resulting in harm to the patient)

Date	Suspected Medication	pADE/ADE Type (1-14 from first table below)	pADE/ADE Classification (A-I from second table below)	Intervention (101-115 from third table below)

pADE/ADE Type

1. Drug dose, interval or duration excessive for treatment goals	6. Adverse drug reaction	11. Pharmacy/dispensing error
2. Incomplete or improper directions	7. Allergy	12. Patient overusing or misusing medication
3. No indication or improper indication for medication prescribed	8. Drug interaction	13. Discrepancy between patient use and prescribed therapy
4. Unnecessary medication or duplication of therapy	9. Lab or diagnostic test indicated but not ordered	14. Using expired medication(s)
5. Drug contraindication	10. Abnormal lab result not addressed	

pADE/ADE Classification

pADE	ADE
A. No med error/event, potential for ADE identified	E. Event occurred, temporary harm requiring intervention
B. Med error/event occurred but did not reach patient	F. Event occurred, temporary harm requiring hospitalization
C. Med error/event reached patient but no harm	G. Event occurred, permanent harm/disability
D. Med error/event reached patient, monitoring or intervention required to confirm no harm	H. Event occurred, life threatening
	I. Event occurred, death

Intervention

101. Discontinue drug(s)	106. Change PRN to scheduled	111. Clarify medication order
102. Substitute drug(s)	107. Change scheduled to PRN	112. Substitute dosage form
103. Add drug(s)	108. Order lab/diagnostic test	113. Make appointment with provider
104. Change dose/dosing interval	109. Educate patient/caregiver	114. Provide medication compliance aid
105. Change duration of treatment	110. Refer to other service	115. Other

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Doing the Work

- Establish medication safety workgroups (teams) within a region/community
  - Integrate current clinical pharmacy teams into existing care transition communities
  - Establish new medication safety teams
- Learning and Action Networks (LANs)-best practice sharing
- Technical Assistance
  - Plan-Do-Study-Act (PDSA) and root cause analysis (RCA)
  - Action plans
  - Data tracking and analysis
- Education and resources

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Work Group: Components

- Leadership commitment
- Measurable improvement (through data reporting)
- Patient-centered care
  - Patient/family engagement, education, and self-management
  - Disparities reduction through PoF approach

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Work Group: Components (cont.)

- Integrated Care Delivery
  - Coordinated care transitions among providers settings with medication reconciliation at each transition
  - Multi-disciplinary rounds
  - Follow-up phone calls (within 72 hours post-discharge for medication related readmissions)

Work Group: Components (cont.)

- Safe Medication Use
  - Establish a clinical pharmacy services process
  - Establish standardization of safe medication practices (medication reconciliation and identify poly-pharmacy and address)

Work Group: Settings

- Acute care
- Long-term care
- Home health
  - Family caregivers at home performing nursing functions—42 million family caregivers
  - Nearly half perform nursing functions
  - 75% perform medication management

  http://www.uhfnyc.org/publications/880853

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Work Group: Settings (cont.)

- Physicians/other prescribers
  - TN Collaborative Pharmacy Practice Act July 1st 2014 — allows pharmacist to integrate into models of care as providers of healthcare services
- Outpatient and primary care services
- Retail and community pharmacies

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Where is our biggest bang for the buck?

"Slick Willie" Sutton (1901-1980)

Question: Why do you rob banks?

Answer: Because that's where the money is!

1. ED and Hospital Admissions: *New England Journal of Medicine 2011; 365:2002-12*

- 100,000 emergency hospitalizations annually for patients 65 years and older
- Warfarin 46.2% of Emergency Department (ED) visits resulting in hospitalization
- Insulins 40.6%
- Oral Hypoglycemic Agents 51.8%
- Opioid 32.4%

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Where is our biggest bang for the buck? (cont.)

2. Home (2013 July—December all payer/all cause claims)
   - In TN approximately 76% of patients are readmitted from home
   - Approximately 60% discharged to home

3. Caregivers
   - 50%—75% of caregivers perform nursing/medication management functions

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Where is our biggest bang for the buck? (cont.)

4. Aging Population
   - Senior ED trend (Holy Cross Hospital in Silver Springs, Maryland in 2008)
     - Any senior who comes in on five or more medications has their prescription list reviewed by a pharmacist before leaving
     - Follow-up services with Social Worker within 48 hours of being seen

Where is our biggest bang for the buck? (cont.)

Research finds older patients have different patterns of emergency department use and thus different needs than their younger counterparts

- Higher number of visits
- More urgent visits
- Longer visits
- More frequent returns to the ED
- Higher rates of complications

Next Steps

- Provision of clinical pharmacy services and education — during admission, transition, discharge and follow up
- Tracking ADE, and pADEs —including ADE-related readmissions
- Collaborating with community providers and services across settings

atom Alliance: Reducing ADEs

atom Alliance works with healthcare providers, communities and patients to reduce ADEs by helping to

- identify barriers to reduction
- implement best practice strategies

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atom Alliance: Reducing Readmissions

atom Alliance brings together state-wide communities to create powerful collaborations of change united in the goals to

- reduce hospital readmission and admission rates in the Medicare program by 20 percent by 2019
- increase the patient's time spent at home after discharge by 10 percent

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Learn More

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