Geriatrics Journal Club
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Background:
- Medication errors are common after hospital discharge.
- Adverse Drug Event (ADE) = injury due to medication
- Categorized as: preventable, ameliorable, and potential ADE’s
- Target for patient safety interventions
- Interventions involving pharmacists have shown benefit in reducing med errors/ ADE’s in inpatient setting
- Research needed to determine impact of pharmacist involvement in decreasing med errors during post-hospital transition to home

Objective:
- To determine effect of tailored intervention on occurrence of clinically important med errors post-discharge

Methods:
- Randomized, controlled trial with concealed allocation and blinded outcome assessors
- Two tertiary academic hospitals (Vanderbilt & Brigham & Women’s)
- Inclusion criteria: Adults hospitalized with ACS or acute decompensated CHF
- Exclusion criteria:
  - Discharge within 3 hours
  - Too ill to participate
  - Unable to communicate in English or Spanish
  - Active psychosis
  - Bipolar disorder
  - Delirium
  - Severe dementia
  - Hearing/ vision impairment
  - Did not manage own meds
  - Unlikely to be dc’d ot home
  - Lacked a telephone
  - In police custody (!)

- Intervention:
1.) Pharmacist – assisted medication reconciliation
2.) Inpatient pharmacist counseling
3.) Low-literacy adherence aids
4.) Individualized telephone follow-up after discharge

- **Outcomes:**
  1.) Number of clinically important medication errors per patient during 1st 30 days after hospital discharge. (PRIMARY)
  2.) Preventable or ameliorable ADEs (SECONDARY)
  3.) Potential ADEs (SECONDARY)

- Outcomes determined for each participant by 2 independent, blinded clinician adjudicators; used a standardized approached (previously validated methods) to ascertain presence of ADE’s and to grade severity, preventability, and ameliorability.

- Complicated scheme re: categorization of ADE’s – see pg 3

**Results:**

A. Number of errors/ ADE’s
   - **Of 851 participants, 432 (50.8%) had 1 or more clinically important medication errors**
     - 75.3% significant
     - 22.9% serious
     - 1.8% life-threatening
   - 258 patients (30.3%) had ADE
   - 253 (29.7%) had Potential ADE

B. Impact of intervention:
   - Intervention did not significantly alter the per-patient number of clinically important med errors or ADE’s
   - Trend toward fewer potential ADE’s in the intervention group

C. See Figures

**Conclusion:** Clinically important medication errors were present among one half of patients after hospital discharge and were not significantly reduced by a health-literacy-sensitive, pharmacist-delivered intervention.

**Discussion:**
- Limitation: Limited generalizability? (Patients well –educated, literate, and cognitively intact.)
- These academic hospitals already had strong medication-use programs, including electronic medical records
- Was this intervention truly ineffective, or do methodological issues prevent from detecting a difference?
- Shady “reframing of primary outcome” on page 3