South Texas Veterans Health Care System
Geriatrics Medicine Education upon Discharge (GMED)

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San Antonio, Texas

Submitted by the J.C.R. H.E.N. with hospital permission

Over the past year, the San Antonio Geriatric Research Education and Clinical Center (GRECC) has successfully implemented the *Geriatrics Medicine Education upon Discharge (GMED)* program, a post-discharge interdisciplinary intervention to prevent hospital readmission in high risk older Veterans at the Audie L. Murphy Division of the South Texas Veterans Healthcare System (STVHCS). This program is modeled after the very successful Pharmacological Intervention in Late Life (PILL) program, developed at the Boston GRECC. The program is led by Sara Espinoza, MD, MSc, Associate Director for Clinical Programs for the GRECC, and was developed in collaboration with Rebecca Rottman-Sagebiel, Pharm.D., BCPS, CGP. Stephanie Pastewait, Pharm.D., BCPS implements the GMED intervention with oversight from Dr. Espinoza. This project is funded through the T21 Patient-centered Alternatives to Institutional Extended Care initiative.

The GMED program serves to:

- Screen and identify high risk older Veterans for the GMED intervention. High risk individuals are older adults admitted to the Medicine, Cardiology, or Neurology inpatient services who: 1) are taking high risk medications (defined using Beers Criteria), 2) are taking 12 or more outpatient medications (indicating high risk for polypharmacy), 3) have had 2 or more hospitalizations in the last year, or 4) have an established diagnosis of dementia.
- Provide comprehensive medication regimen review of both outpatient and inpatient medications upon hospital admission for high risk older veterans, and communicate all findings with the admitting physician and team. When discrepancies or potential medication errors are identified, the admitting physician team is contacted to communicate concerns and develop a plan of action and resolution.
- Provide follow-up telephone medication reconciliation to all high-risk veterans and/or face-to-face visits as needed. Additional education is provided if medication errors are identified, empowering patients to take responsibility for their medicines, while providing appropriate education and monitoring.
- Our project funds one CPS who spends approximately 60 minutes during the initial chart review and inpatient face-to-face visit, and about 30 minutes during the post-discharge chart review and telephone medication reconciliation.
- Case-based educational sessions regarding polypharmacy and performing medication reconciliation are being developed for inpatient medicine care staff, focusing on Internal Medicine physicians.

Our GMED project provides a much needed safety net to prevent adverse events and hospital readmissions in high risk older Veterans during a critical transition period. Our intervention is patient-centric, focusing on the needs and barriers unique to each Veteran. Data was analyzed over 5-week

period from May 28-June 30. During this period, 249 patients from 3 inpatient wards were ≥ 65 years. 89 of 249 (35%) were eligible for the GMED intervention. Among GMED eligible patients, 42 (47%) received the intervention, and 47 (53%) were considered the "control" group. The "control" group was comprised of individuals who were eligible for the intervention but did not receive the intervention due to time constraints. At 30 days, 2 of 39 (5%) in the GMED group were readmitted, and 4 of 42 (9.5%) in the control group were. Interestingly, the readmission rate was highest (14%) in older (65+) patients who were not eligible for GMED, which primarily consisted of patients admitted to the surgical services.

As a result of the GMED intervention several potential problems have been averted as a result of our intervention. We are tracking, among other factors, medication errors such as drug omission, over-dose, under-dose, and therapeutic duplication. More specifically, a few examples of potential problems that have been averted are:

- A patient taking enoxaparin and warfarin was discharged from the hospital with no follow-up INR lab test ordered and PCP follow-up appointment scheduled more than 3 weeks from hospital discharge date. The CPS contacted the patient and PCP to facilitate lab appointment for INR check, which resulted in appropriate adjustment of Coumadin and follow-up.
- A bed bound patient was discharged to home without appropriate services in place, including home nursing services for sacral decubitus ulcers and PEG tube feedings which were initiated during the admission. This frail patient required follow-up care, but had no way to get to the scheduled PCP follow-up appointment as the transportation request was denied the day after discharge (transportation consultation was placed on the day of discharge). In this case, the Geriatrician intervened to call the family to determine the veteran's care needs. She determined that this patient required home nursing for skilled services and was appropriate for referral to the Home-based Primary Care (HBPC) program, which the family was agreeable to. The Geriatrician contacted the physician who discharged the patient to request that he place an order for HBPC and home nursing, and he agreed. The patient also had been experiencing severe constipation (likely due to his bedbound status) without a bowel movement in several days. CPS ordered appropriate bowel regimen for this patient which the family was able to pick up from the pharmacy.
- A patient admitted to the hospital with congestive heart failure was experiencing exacerbation of symptoms (dyspnea, edema, and orthopnea); however, PCP follow-up appointment was scheduled more than 2 weeks from discharge date. CPS instructed patient to call PCP for earlier appointment; however, the patient was given a telephone appointment for the following week instead of a face to face visit. CPS then contacted the PCP office to request earlier appointment given exacerbation of the patient's symptoms, and sooner face to face follow-up was subsequently scheduled.
- There have been multiple instances of patients taking incorrect dosages of anti-hypertensives and diuretics upon discharge. Patients were resuming prior outpatient dosages without understanding that the dosages had been adjusted as a result of the hospital admission. The CPS provided education regarding the dosage change in order to ensure that the patient understood the new dosage.

Costs/Savings for the facility: Locally the cost per patient at Audie L. Murphy VA Hospital is $2763 per day, and the average inpatient stay is 3.5 days. Based on our initial data, the GMED program saves approximately $9670 per patient for each patient not re-admitted within 30 days. Therefore, the GMED program saved our facility $19,340 over 5 weeks. If the intervention continues to prevent only 2 readmissions per month, the facility will save over $200,000/year.

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Respectfully submitted by Sara E. Espinoza, MD (STVHC/GRECC) *Date: September 5, 2013*