The Role of the Discharge Pharmacist in the Community Hospital Setting

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Objectives

Pharmacist Objectives:
- Discuss implementation of discharge pharmacist program.
- Review daily tasks of a discharge pharmacist.
- Describe an example case review.

Technician Objective:
- Discuss implementation of a discharge pharmacist program.

Southwest General Health Center
- 350 bed, non-profit hospital
- Level III Trauma Center
- Seidman Cancer Center
- Oakview Behavioral Health
- Intensive Care Units
- Anticoagulation Clinic

By The Numbers...
- 66% of preventable medication reconciliation errors occur during transitions of care.\(^1\)
- 12% of these errors occur during discharge.\(^1\)
- The average hospital medication error costs about $8750.\(^2\)
- Average cost of readmission for common medical conditions ranged from $11,200 (COPD) to $13,000 (CHF, Pneumonia).\(^3\)
- Pharmacist average monthly salary: $9872.50.\(^4\)
- Prevention of one single readmission/month can cover the cost of at least 1.0 pharmacist FTE/month.\(^4\)

Position Justification
- In 2011, pharmacy developed a clinical service that improved accuracy, efficiency, and safety of ADMISSION medication reconciliation.
- After continued observation and retrospective review, recommendation made to add pharmacist coverage to discharge medication reconciliation process.
- Multiple cost-analyses performed and options presented based on size of roll-out coverage and cost.

Position Justification
- Decision made to implement 1.4 Pharmacist FTE on highest discharge volume nursing unit.
- This model was deemed the most cost-effective and would have the largest initial impact for initial roll-out vs wider initial roll-out options presented.
Position History

- Position created May 2012. Full-time pharmacist hired for M-F coverage.
- Pharmacist transitioned to 2 North (cardiac stepdown unit) in August 2012.
- Part-time pharmacist hired October 2012.
- 7-day coverage of 2 North began January 2013.

Position Goals

- Primary:
  - Improve accuracy of discharge medication reconciliation
  - Improve patient safety
  - Decrease readmission rates
- Secondary
  - Increase physician/nursing satisfaction
  - Increase patient education

Position Description

- Hours: 8:30-5 seven days/week; additionally 8-8 shift pharmacist for late discharge coverage Monday-Friday.
- Review discharge medication reconciliations PRIOR to patient discharge.
- Note, pursue, and correct medication discrepancies with appropriate physicians.
- Assist physicians and nursing staff with completing discharge medication reconciliations.

Position Description

- Assist case management/social work in eliminating potential medication barriers to discharge.
- Perform targeted medication counseling for patients new to anticoagulation or patients that require in-depth counseling.
- Call in new prescriptions to patient pharmacies upon request from physician(s).

Workflow

- Original Workflow:
  - Triage patients for review based on post discharge plans (ex. Home vs SNF)
  - Review discharge med rec
  - Identify and address noted discrepancies and make corrections if needed
  - Counsel patients regarding new medications and review all home going medications
  - Document
- Current Workflow:
  - Review discharges when notified of discharge order.
  - Med Reconciliations reviewed based on expected time of discharge
  - Review discharge med rec
  - Identify and address noted discrepancies and make corrections if needed
  - Document
  - Prioritize and counsel patients based on availability and current discharge load.
Workflow

• Original Workflow
  ▪ Advantages
    □ More patient interaction.
    □ More opportunities for medication counseling.
    □ Improved patient understanding of medication therapy.
  ▪ Disadvantages
    □ Ability to review ALL discharges compromised due to time constraints.
    □ Allows for potential medication errors to slip through.
    □ Duplication of effort between pharmacy and nursing staff with basic medication education based on current workflows.
    □ Can cause delays in discharge process both directly and indirectly.
    □ Risk patients not having pharmacist reviewed discharge med reconciliation.

• Current Workflow
  ▪ Advantages
    □ Allows for review of ALL med reconciliations prior to discharge.
    □ Improved accuracy of medication reconciliations.
    □ More time for pursuit of potential medication errors.
    □ More efficient discharge process with less duplication between pharmacy and nursing staff.
    □ Additional opportunities for core measure reviews
    □ Reduces delay in discharge process.
  ▪ Disadvantages
    □ Less counseling opportunities.
    □ Less opportunities for patient interaction.

Workflow

• Current workflow implemented in January/February 2013.
• Discharge instructions CANNOT be printed and provided to patient prior to pharmacist review and clearance.
• Current workflow process allowed for review of 99% of discharges on floors currently covered by a Discharge Pharmacist.

Position Growth and Evolution

• Addition of 2 South (medical telemetry) discharge pharmacist in September 2013.
• Added discharge review responsibilities to 3 West (medical) pharmacist early 2014.
• Addition of 5 E (Med/Surgery) discharge pharmacist October 2014.

Position Growth and Evolution

• Discharge Pharmacists have currently adopted more “traditional” clinical tasks as the hospital has expanded and reorganized patient loads and nursing units.
• Additional responsibilities include:
  □ IV to PO conversions
  □ Inpatient warfarin dosing per protocol
  □ Order verification directly from assigned units/floors
  □ Antibiotic dosing and monitoring

Mock Case #1

• S:AB is a 68 yo male. Admitted with CP, HA, and uncontrolled HTN. Patient states compliance with all home medications.
• O:
  □ PMH: A.Fib, HTN, gout
  □ Home medications:
    □ Allopurinol 100mg daily, Amiodarone 200mg daily, Metoprolol Succinate 100mg daily, Pravastatin 10mg q HS, and Warfarin 3mg daily
    □ All labs WNL: Blood pressures elevated during admission with SBP ranging 160-170 and DBP ranging 70-80.
• A: Patient diagnosed with uncontrolled HTN.
• P: Add Amlodipine 2.5mg daily to medication regimen as inpatient and for discharge per cardiology recommendation.
Mock Case #1

**Inpatient Medications**
- Allopurinol 100mg daily
- Amiodarone 200mg daily
- Amlodipine 2.5mg daily
- Metoprolol Succinate 100mg daily
- Pravastatin 10mg q HS
- Warfarin 3mg daily

**Discharge Medications**
- Allopurinol 100mg daily
- Amiodarone 200mg daily
- Metoprolol Succinate 100mg daily
- Pravastatin 10mg q HS
- Warfarin 3mg daily

What is incorrect with this medication reconciliation?
- How would you proceed?

Mock Case #2

S: AL is an 80 yo male, who presented to PCP office with SOB and lower extremity edema. Patient complains of inability to complete his normal exercise routine of walking 2 miles per day in park near his home. Patient sent to hospital for further management.

- O:
  - ROS: Presents with noted lower extremity edema and SOB.
  - PMH: CHF and CAD
  - Home Medications:
    - ASA 81mg daily, Furosemide 20mg daily, Metoprolol Tartrate 25mg BID, Simvastatin 40mg q HS.
    - EF 35-40%
    - Allergy: ACE-I due to angioedema
  - A: CHF exacerbation.
  - P: Change Metoprolol Tartrate 25mg BID to Metoprolol Succinate 50mg daily. Change diuretic on discharge to Torsemide 10mg daily.

Mock Case #2

**Inpatient Medications**
- ASA 81mg daily
- Furosemide 20mg IV daily
- Metoprolol Succinate 50mg daily
- Simvastatin 40mg q HS

**Discharge Medications**
- ASA 81mg daily
- Furosemide 20mg daily
- Metoprolol Tartrate 25mg BID
- Simvastatin 40mg q HS

Is discharge medication regimen core measure compliant?
- What discrepancies can be seen?
- How would you pursue noted issues/discrepancies?

Mock Case #3

S: AR is 70 yo female, who presents with palpitations, HA, SOB, and uncontrolled HTN. Patient states she is generally compliant with medications but does forget from time to time to take some of them. Patient also states her PCP added another “water pill” to her regimen to help her blood pressures but she is still taking one her cardiologist prescribed as well.

- O:
  - PMH: HTN, CAD, A.Fib
  - Home medications:
    - ASA 81mg daily, Atorvastatin 40mg daily, Chlorthalidone 25mg daily, HCTZ 25mg daily, Valsartan 80mg daily, Warfarin 2mg daily.
    - INR 2.1, K 3.2 (Normal 3.5-5.1)
    - SBP >160 on admission, HR ranging 90-120.
  - A: A.Fib PVR, uncontrolled HTN
  - P: Add Digoxin 0.125mg daily and Metoprolol Tartrate 25mg BID as inpatient and for discharge per cardiology. Also, increase Valsartan to 160mg daily per cardiology.
Mock Case #3

Inpatient Medications
- ASA 81mg daily
- Atorvastatin 40mg daily
- Chlorthalidone 25mg daily
- Digoxin 0.125mg daily
- KCL 20mEq daily
- Metoprolol Tartrate 25mg BID
- Valsartan 160mg daily
- Warfarin 2mg daily

• ASA 81mg daily
• Atorvastatin 40mg daily
• Chlorthalidone 25mg daily
• HCTZ 25mg daily
• KCL 20mEq daily
• Valsartan 160mg daily
• Warfarin 2mg daily

What would need further investigation regarding her home medication regimen?
What discrepancies do you note?
What information would you review PRIOR to speaking with physician?

Conclusion
Pharmacists become a larger part of the discharge process.
Improved process for identifying, resolving, and documenting both actual and potential medication errors.
Develops stronger relationships between pharmacists and other HCP’s (nurses/physicians).
Increased patient safety, reduced readmissions.
Highly customizable position based on hospital and/or unit needs.

Questions?

References