

Development of pharmacist driven transition of care intervention in acute ischemic stroke patient population

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BACKGROUND

Acute Ischemic Stroke (AIS)

- Stroke is a leading cause of morbidity and mortality in the United States¹
- Ischemic strokes account for about 87% of all strokes¹
- Clinical practice guidelines provide recommendations for early management of acute ischemic stroke (AIS) and secondary prevention²
 - Antithrombotic therapies are associated with reduced mortality, stroke-related morbidity and recurrence rates³
 - Extensive and consistent body of knowledge supporting statin use for secondary prevention³
- The Joint Commission (TJC) implements standardized core performance measures for hospitals³ Those particularly pertinent to pharmacists are:

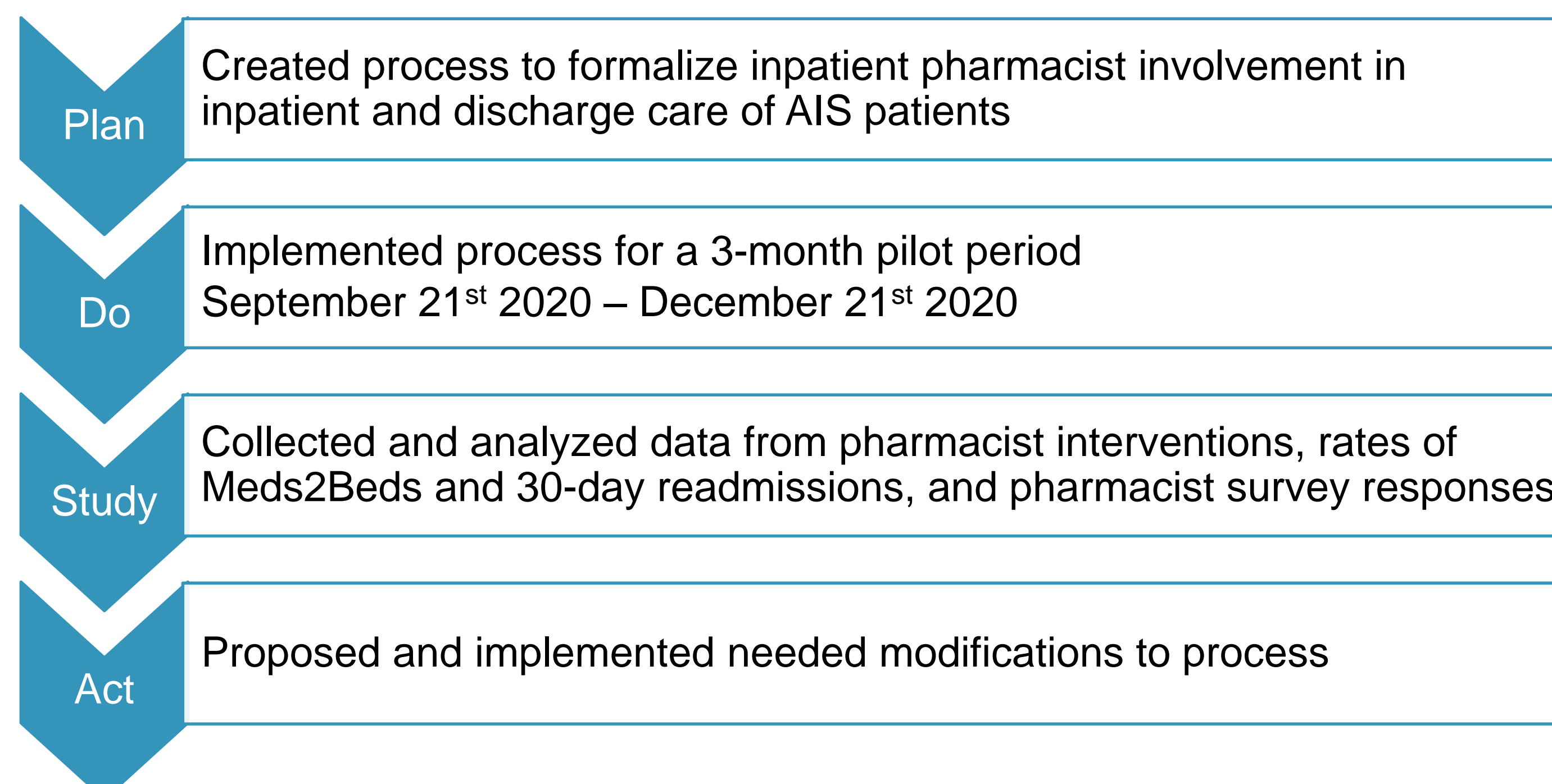
STK-1	Venous Thromboembolism (VTE) Prophylaxis
STK-2	Discharged on Antithrombotic Therapy
STK-3	Anticoagulation Therapy for Atrial Fibrillation/Flutter
STK-5	Antithrombotic Therapy By End of Hospital Day Two
STK-6	Discharged on Statin Medication

Pharmacist-led Transitions of Care Benefits^{4,5}

- Bedside discharge medication delivery is associated with
 - Increased access to medications
 - Decreased 30-day readmission rates
- Pharmacy interventions at transitions of care have been shown to
 - Increase adherence to medications
 - Decrease length of stay
 - Decrease 30-day readmission rates

METHODS

This process improvement project utilized Plan-Do-Study-Act methodology



INTERVENTION

- Identified AIS evidence-based guidelines and TJC stroke core measures pertinent to pharmacists
- Created electronic medical record (EMR) patient list and documentation tools

Designed and implemented a process to formalize inpatient pharmacist involvement in the care of AIS patients while inpatient and during transition to outpatient

Inpatient

- Follow outlined expectations for inpatient multidisciplinary stroke rounds
- Utilize provided pharmacy-based checklist
- Focus on TJC core measures

Transition to Outpatient

- “Meds2Beds” enrollment
- Perform discharge medication list review
- Facilitate early prescribing of branded prescriptions

- Created educational document outlining steps of new process
- Educated inpatient pharmacist on new process, using educational document as guide

RESULTS

Collected data from pharmacist interventions, AIS patient data, and pharmacist survey responses

252 interventions documented on 128 patients

Inpatient: 175 (69.4%)

- Accepted: 173 (98.9%)
- Exemption notes written: 5
- Intervention by subcategory:
 - Route adjustment: 56 (32%)
 - VTE prophylaxis: 53 (30%)
 - Statin: 38 (22%)
 - Antiplatelet: 21 (12%)
 - Anticoagulant: 7 (4%)

Transition to Outpatient: 77 (30.6%)

- Action by subcategory:
 - New brand e-scribe: 3 (4%)
 - “Meds2Beds” enrollments: 8 (10%)
 - Discharge medication list review: 66 (86%)
 - Intervention: 2 (3% of reviews)
 - No intervention: 64 (97% of review)

AIS Patient Data			
Outcome	2019	2020	P-value
Meds2Beds rate	6/19 (31.58%)	8/19 (42.11%)	0.74
30-day readmission rate	8/107 (7.48%)	7/113 (6.19%)	0.79
High Intensity Statin Therapy on Hospital Discharge			
January 2019 – September 2020	October 2020	November 2020	December 2020
702/792 88.6%	36/36 100.0%	36/37 97.3%	46/46 100.0%

Key Pharmacist Survey Results

- Per shift, average total time pharmacists reported spending to identify patients eligible for discharge medication list review: 20 – 30 minutes
- Per patient, average time pharmacists reported spending to perform discharge medication list review: 10 – 20 minutes

MODIFICATIONS

Inpatient

- Updated pharmacist checklist and process educational document and expanded system-wide
- Expanded EMR documentation tools system-wide

Transition to Outpatient

- Discharge prescription delivery enrollment
- Reduced process requirements due to limited impact
- Discharge medication list review for stroke measures
- Removed process from pharmacist expectations due to time commitment and limited impact

NEXT STEPS

- Incorporate early prescribing of branded prescription process into inpatient pharmacist workflow
- Update pharmacist intervention documentation to reflect changes

DISCUSSION

Strengths

- Target population pertinent to this institution
- Applicable to outside hospitals
- Ability to measure impact of process

Limitations

- Process compliance was not audited
- Low baseline readmission rates
- Few opportunities for branded prescription discharge process

CONCLUSIONS

- Optimized inpatient pharmacist involvement in coordinating transition of care from inpatient/specialist management to discharge
- Successfully formalized inpatient pharmacist role in caring for AIS patients
- Established framework for optimizing role of pharmacist in other diseases states with core measures

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