Falls Prevention: Innovation and the Utilization of Technology

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Ontario Shores Centre for Mental Health Sciences

- Comprehensive mental health and addiction services for those with complex, serious and persistent mental illness
- 15 specialized inpatient units and an extensive outpatient and community services

Falls Prevention

- Early identification of patients at a risk of falls and decreasing the incidents of Falls at Ontario Shores

Why is this important?

- Organizational impact:
  - Quality improvement
  - Increased patient safety
  - Organizational cost
  - Decrease trauma
  - Quality of life improvement

The Problem

- Increased number of falls
- No care pathway
- Lack of knowledge for falls process
- Lack of consistent documentation
- Tool utilized not ideal for Mental Health clients

The Falls Prevention Working Group

- Corporate objective and Accreditation Indicator
- Falls Prevention Group created
- Documentation sub-working group
  - New forms identified
  - New process developed
  - Single place for documentation in EHR

WPS.FALLSAXD.00

Falls Risk Assessment V1

Falls Risk Factors

Field	Options / Criteria
Assessment type	◯ Admission ◯ Change of status ◯ Transfer ◯ Initial assessment ◯ Post fall
Age 65 - 79	◯ Yes ◯ No
Age 80 or greater	◯ Yes ◯ No
Altered mental status	◯ Yes ◯ No
	Exhibits one or more of the following conditions: • unable to follow instructions • impaired short term memory • disorientation to time and place • impaired thought process (psychosis), conditions that potentiate confusion or agitation such as delirium or septicemia
Attempts to get out of bed/chair unsafely	◯ Yes ◯ No
	• Impaired mobility or weakness and demonstrates poor judgement or experiences acute delirium (e.g. climbs over side rail, forgets to request or wait for assistance)
Previous fall in the past month related to patient condition	◯ Yes ◯ No
	• Weakness, impaired mobility, confusion, or acute illness (not environmental)
Impaired mobility, balance or gait	◯ Yes ◯ No
	– shuffling, small steps, slow pace – uses gait aids or holds onto people or furniture – unsteady when standing or sitting
Generalized weakness	◯ Yes ◯ No
	Exhibits one or more of the following conditions: • verbalizes feeling weak • dizzy • unable to sit or stand unassisted on side of bed • muscle weakness/fatigue • impairs ability to perform 2 or more activities of daily living (e.g. toileting, bathing, dressing, transferring, walking and self-feeding)
Alterations in urinary elimination	◯ Yes ◯ No
	• Frequency, urgency, nocturia, incontinence, IV therapy, diuretics
Medications in the last 24 hours	◯ Yes ◯ No
	– psychiatric medication (e.g. antidepressants, antipsychotics, benzodiazepines, mood stabilizers) – cardiovascular medication (e.g. antihypertensives, diuretics, antiarrhythemics) – narcotic analgesics (opiates) – more than 5 medications
Immobile	◯ Yes ◯ No

Total

Field	
Falls risk score	
	** If total score is greater than or equal to 5 patient is at high risk for falls. ** It is possible to have a negative number which is indicating a LOW falls risk.

Assessments

Nursing falls assessment ✔

Falls Risk Assessment

Assessment type	○ Admission/Transfer ○ Change in Status ○ Post Fall Contributing factors to fall
Age of patient	○ Under 65 ○ 65-79 ○ 80 and over In general, patients over 65 years old are at higher risk for falls with patients over 80 years at even greater risk.
Altered mental status	○ Yes ○ No Patients with any major mental illness, including dementia, will often show a positive score in this category.
Previous fall in the past month	○ Yes ○ No Patients who have fallen in the past month may be at greater risk of a future fall.
Impaired Mobility	○ Yes ○ No If the patient takes shuffling, small steps, has a slow pace, uses gait aids, holds onto people or furniture when walking or is unsteady when standing or sitting they receive a positive score in this category
Polypharmacy (4 or more medications)	○ Yes ○ No Four or more medications often increase the risk of falling. Due to the increased risk of bleeding post-fall, those patients on anticoagulant therapy should have regular monitoring of their International Normalized Ratio (INR). Common medications associated with increased falls risk are: Benzodiazepines, Sedatives, Antidepressants, Antpsychotics, Anticholinergics, Antihistamines Antihypertensives, Diuretics, Antiarrhythmics, Anticonvulsants, Narcotics/opioids, Metoclopramide

Total

Falls risk score	 ** If the patient is at a medium or high risk of falls, a care plan must be put into place.
Risk Level	

Assessments

Pharmacy Falls Assessment ✔

Pharmacy

Calculated CrCl (ml/min)	
Comment	
Adjustment of current medication required	○ Yes ○ No Based on calculated CrCl
Relevant laboratory values:	

Medications contributing to total ADS

ADS is not intended to replace decision making by the clinician, but can contribute in making clinical decision on drug treatments with a goal of minimizing potential anticholinergic toxic reactions such as falls

R. Bhattacharya MS; S.Chatterjee MS;R.M.Carnahan PharmD,MS et al. "Prevalence and Predictors of Anticholinergic Agents in Elderly Outpatients with Dementia." The American Journal of Geriatric Pharmacotherapy. 2011; 9(6); 434-441.

Scoring:
0 None
1 Possible
2-3 established, clinically relevant

New Medication   Add a Medication

Anticholinergic drug score (ADS)	

Other

Total ADS Score	
Medications with contributing side effects	
Identified drug interactions:	
Recommendations	

Fri Feb 21
11:07
by MA

Interventions

OT/PT Falls Assessment Active ✓

Assessments

OT/PT Falls Assessment ✓

Subjective

Pt shows insight into assessment	○ Yes ○ No Comment:
Comment	

Objective

Previous fall in the past month	◉ Yes ○ No Patients who have fallen in the past month may be at greater risk of a future fall.
Description of falls	
Weight Bearing Status	○ Non-Weight Bearing ○ Weight Bear as Tolerated ○ Touch Down Weight Bearing ○ Full Weight Bearing ○ Partial Weight Bearing
Sitting balance	☐ Within functional limits ☐ Unable ☐ Able to right self ☐ Hands ☐ Listed left/right
Standing balance	☐ Within functional limits ☐ Unable ☐ Able to right self ☐ Unsteady ☐ Listed left/right
ROM and strength upper extremity	
ROM and strength lower extremity	
Ambulation	☐ Ambulates with assistance ☐ Ind. short distance only ☐ Assist one person ☐ Ambulates with device ☐ Unable to ambulate ☐ Assist two person ☐ Ind. without device ☐ Wheelchair
Ambulation device type	☐ Cane ☐ 2 wheeled walker ☐ 4 wheeled walker ☐ Standard walker
Bladder continence	○ Continent ○ Occasional incontinence ○ Control with catheter ○ Incontinence ○ Infrequent incontinence ○ Did Not Occur - No Output ○ Episode incontinence
Bowel continence	○ Continent ○ Episode incontinence ○ Did Not Occur - No BM ○ Control with ostomy ○ Occasional incontinence ○ Infrequent incontinence ○ Incontinence

Assessment

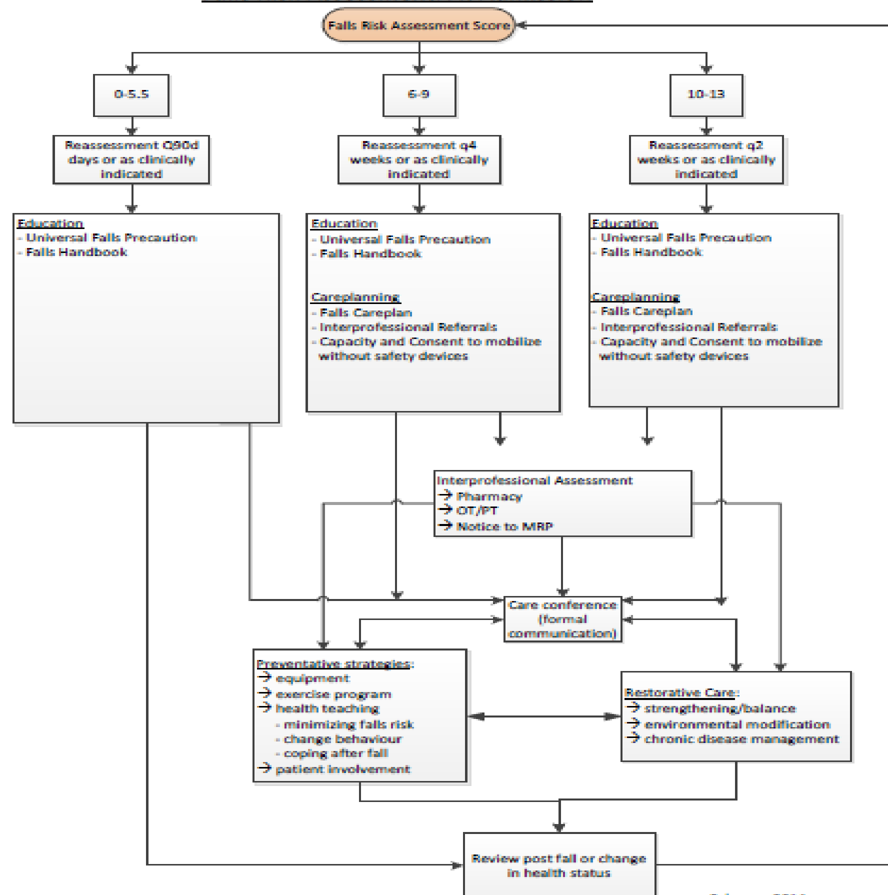
TUG (seconds)	
Berg balance	
SLS right	
SLS left	
Chair sit to stand reps/30 sec	

Ambulation and transfers

Rolling	○ Independent ○ Supported ○ Assisted
Assistance with rolling	
Bridging	○ Independent ○ Supported ○ Assisted
Assistance with bridging	
Supine to sit	○ Independent ○ Supported ○ Assisted
Assistance with supine to sit	
Sit to stand	○ Independent ○ Supported ○ Assisted
Bed to chair	○ Independent ○ Supported ○ Assisted
Assistance with bed to chair	

Analysis

Analysis	
Other factors limiting occupational performance	


Falls Risk Assessment: At Admission
Falls Risk Assessment Score
0-5.5
6-9
10-13
Reassessment Q90d days or as clinically indicated
Reassessment q4 weeks or as clinically indicated
Reassessment q2 weeks or as clinically indicated
Education
- Universal Falls Precaution
- Falls Handbook
Education
- Universal Falls Precaution
- Falls Handbook
Careplanning
- Falls Careplan
- Interprofessional Referrals
- Capacity and Consent to mobilize without safety devices
Education
- Universal Falls Precaution
- Falls Handbook
Careplanning
- Falls Careplan
- Interprofessional Referrals
- Capacity and Consent to mobilize without safety devices
Interprofessional Assessment
Pharmacy
OT/PT
Notice to MRP
Care conference (formal communication)
Preventative strategies:
equipment
exercise program
health teaching
- minimizing falls risk
- change behaviour
- coping after fall
patient involvement
Restorative Care:
strengthening/balance
environmental modification
chronic disease management
Review post fall or change in health status
February 2014

- Assessments
  - **Nursing falls assessment** ✓
    - Falls Risk Assessment

Assessment type	○ Admission/Transfer ○ Change in Status ○ Post Fall Contributing factors to fall
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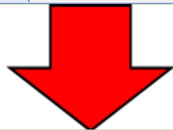
- Total

Falls risk score	** If the patient is at a medium or high risk of falls, a care plan must be put into place.
Risk Level	



✓	Type	Suggestions	Action	Trigger	Result
☐	Order	Occupational Therapy Referral	Order Now	Risk Level	High Risk
☐	Order	Pharmacy Referral	Order Now	Risk Level	High Risk
☐	Order	Physiotherapy Referral	Order Now	Risk Level	High Risk
☐	Thm	Falls Risk	Add as a Miscellaneous Theme	Risk Level	High Risk

Triggered By

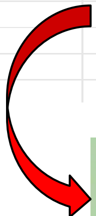
Trigger	Answer	Reason	Assessment
Risk Level	High Risk	Equal to High Risk	Nursing falls assessment

Select Action
Add as a Miscellaneous Theme

Cancel ✗ | OK ✓

Order	Status	Start/Stop	
Occupational Therapy Referral			
Routine	New*	Wed Mar 05	*Edit
* Provider	Train 1,Doctor		
* Source	Telephone Read Back		
Pharmacy Referral			
Routine	New*	Wed Mar 05 09:14	*Edit
* Provider	Train 1,Doctor		
* Source	Telephone Read Back		
Physiotherapy Referral			
Routine	New*	Wed Mar 05	*Edit
* Provider	Train 1,Doctor		
* Source	Telephone Read Back		

Type	Description	Status	Source		Start Dt/Tm	Target	R
Thm	Falls Risk	Active	Misc		19/02/14 14:04		3
Goal	Reduce risk of falls	Active	Misc		19/02/14 14:04		
Int	OT/PT Falls Assessment	Active	Misc	A	19/02/14 14:05		
Int	Pharmacy Falls Assessment	Active	Misc		19/02/14 14:05		
Int	Falls Risk Assessment	Active	Misc		19/02/14 14:05		



Fri Apr 4
21:00
by MA

Outcomes

Reduce risk of falls

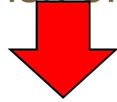
Reason for update	New goal / Update / Change in status / Discharge planning
Patient involved in goal setting	Yes / No
Patient specific details (Reason for Goal)	
Progress towards goal achievement	No progress / Poor / Fair / Good / Excellent
Strengths	Ability to communicate desires; Ability to learn; Independent; Knowledgeable; Self expressed desire to attend services; Willingness to attend services; Unknown
Barriers/challenges	Adherence to treatment; Communication; Community support; Criminal involvement; Finances; Housing; Lack of social supports; Physical health; Psychosocial; RAI Triggers/Outcomes; Substance use; Vocational; Lack of insight
Other barriers	
Consent to ambulate? (add note)	Yes / No Comment: The patient/SDM understands that this patient has been determined to have a (high/moderate) risk of falling during ambulation. Patient/SDM understand that restricting ambulation by use of safety devices will be most effective in reducing that risk, have decided that the benefits of ambulation outweigh the risk, and accept that risk. Patient/SDM also understand that staff will offer suitable mobility and/or harm reduction equipment that does not prevent ambulation.
Next Care plan review Due:	
Associated clinician	
Action Plan	
Action Plan	
Action Plan	

Falls Monitoring and Prevention: Clinical Panel

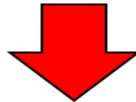
Falls Risk	13/02/15 12:00 23:59	14/02/15 12:00 23:59	15/02/15 12:00 23:59	16/02/15 12:00 23:59
Assessment type	Admission...	Change in...	Change in...	Post Fall
Falls risk level	Medium Ri...	High Risk	High Risk	High Risk
Pharmacy recommendations		Decrease ...		Decrease ...
Weight bearing status	Weight Be...	Weight Be...	Weight Be...	Weight Be...
Berg balance	4	4	4	4
TUG (seconds)	60	60	60	60
Single leg stand right	2	2	2	2
Single leg stand left	1	1	1	1
Chair sit to stand reps/30...	1	1	1	1
Ambulation	Ambulate... Ind. short...	Ambulate... Ind. short...	Ambulate... Ind. short...	Ambulate... Ind. short...
Ambulation device type	Cane	Cane	Cane	Cane

Falls Prevention:

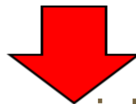
- Patient is flagged for falls risk of Medium or High



- Referrals are sent to OT, PT and Pharmacy for evaluation by allied staff. Physician also evaluates patients and identifies changes as required

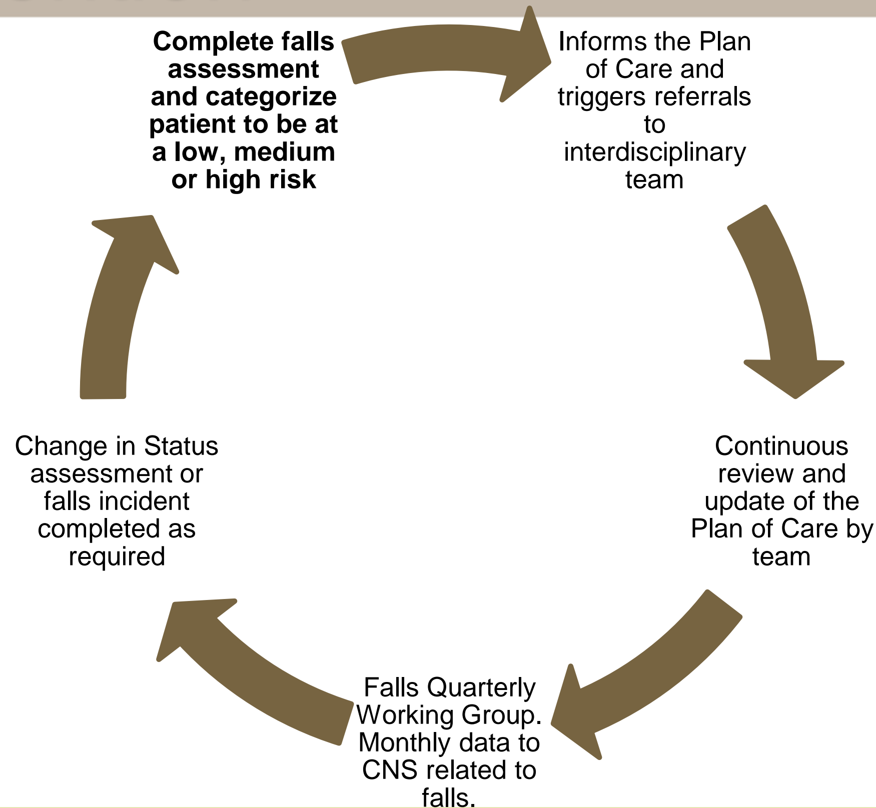


- Conference on the unit, review of patients by Falls Committee, CNS, Risk Management and Unit Manger

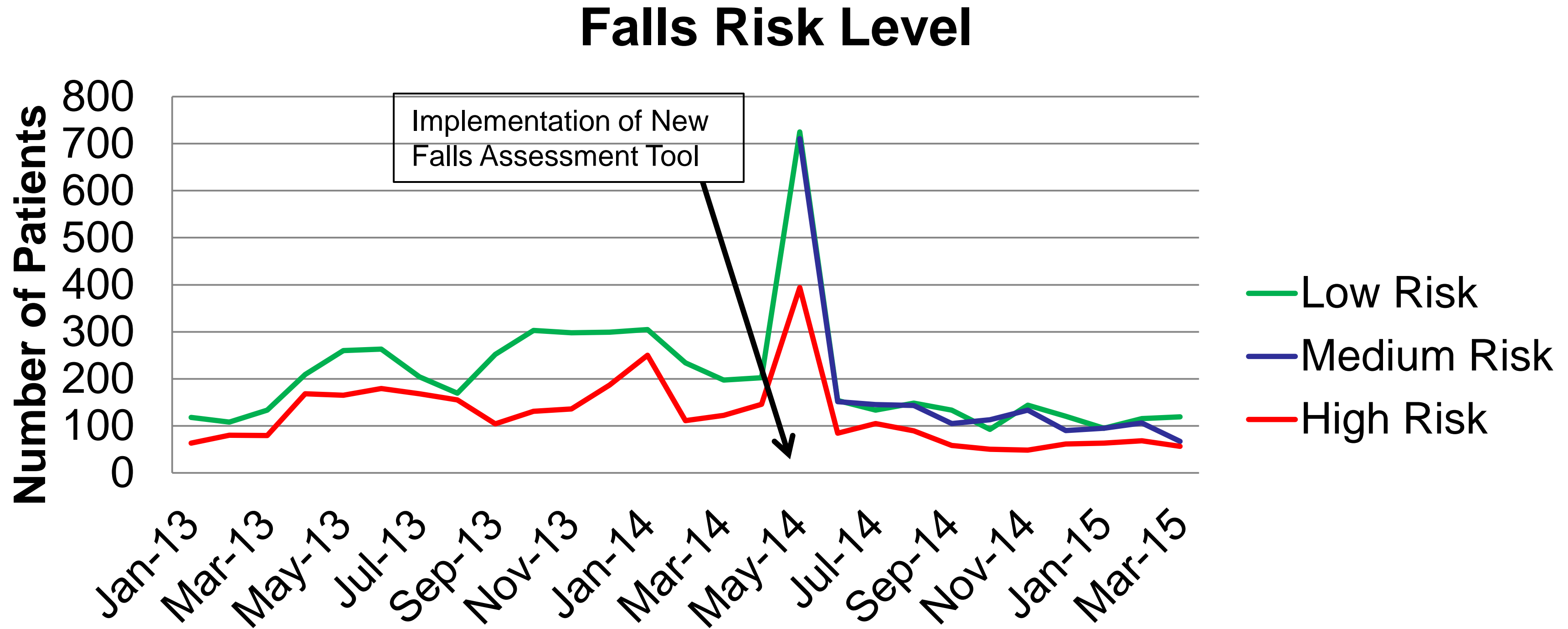


- Recommendations to reduce risk or minimize harm to the patient while improving quality of care

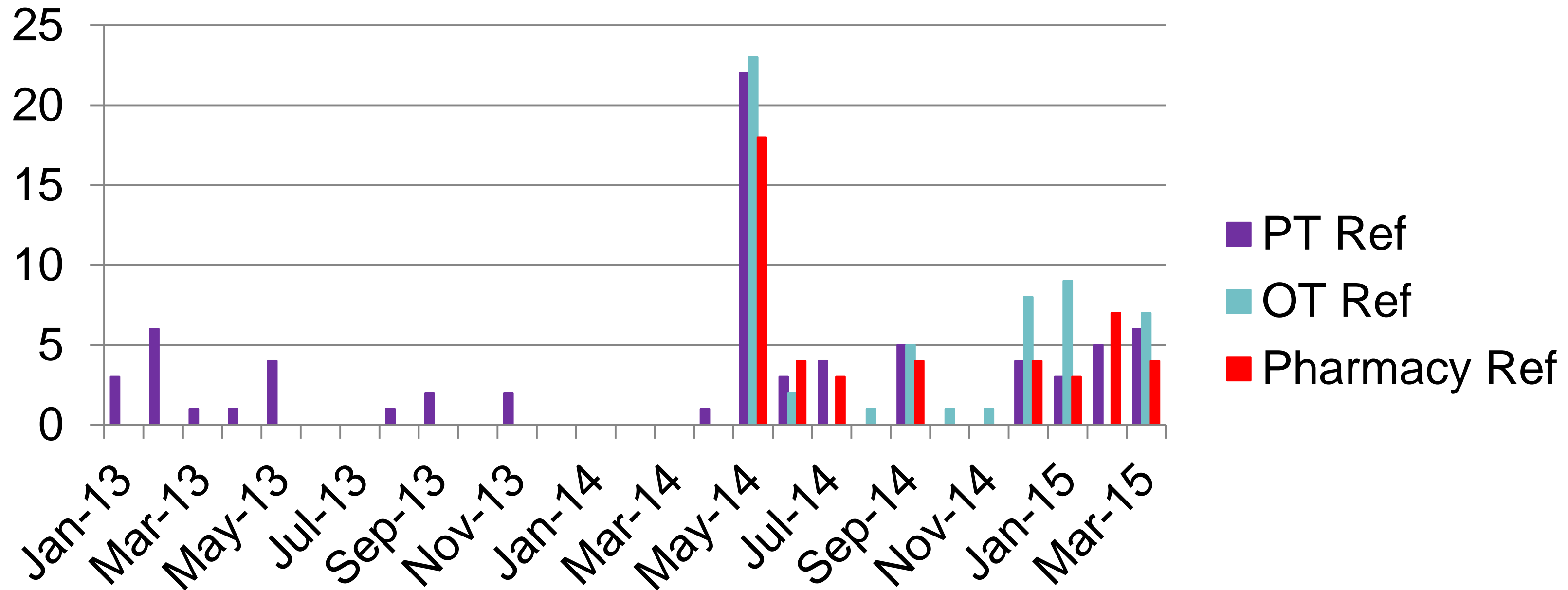
Quality Improvement Cycle: Falls Prevention



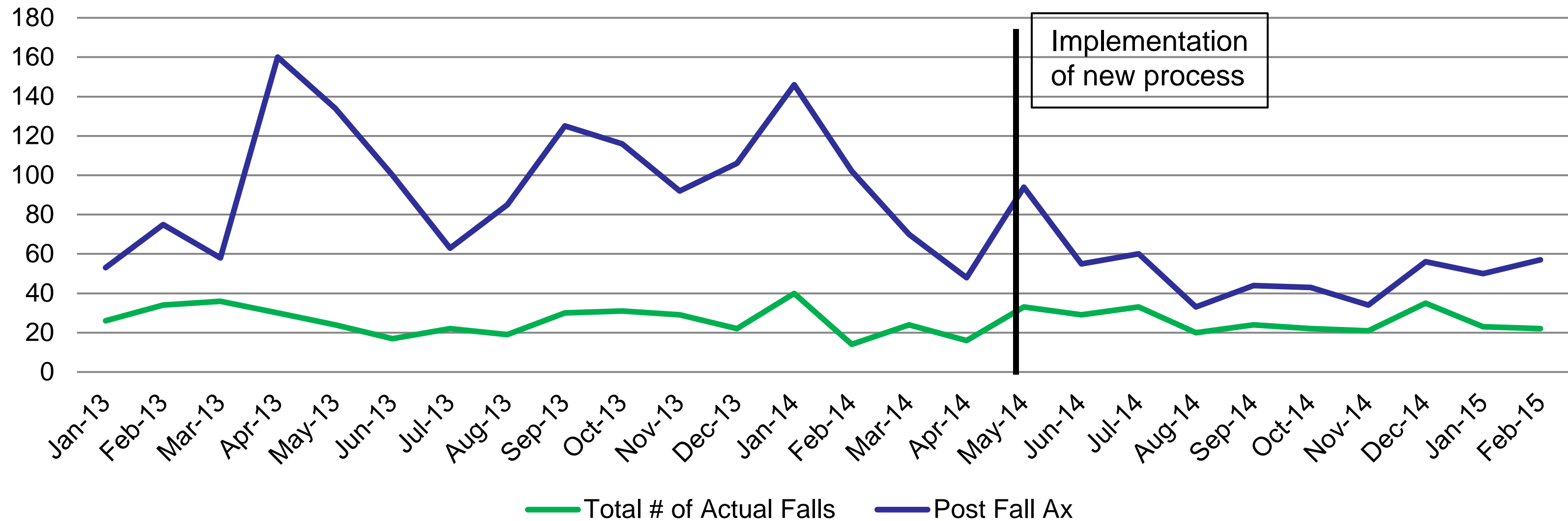
Falls Risk Level



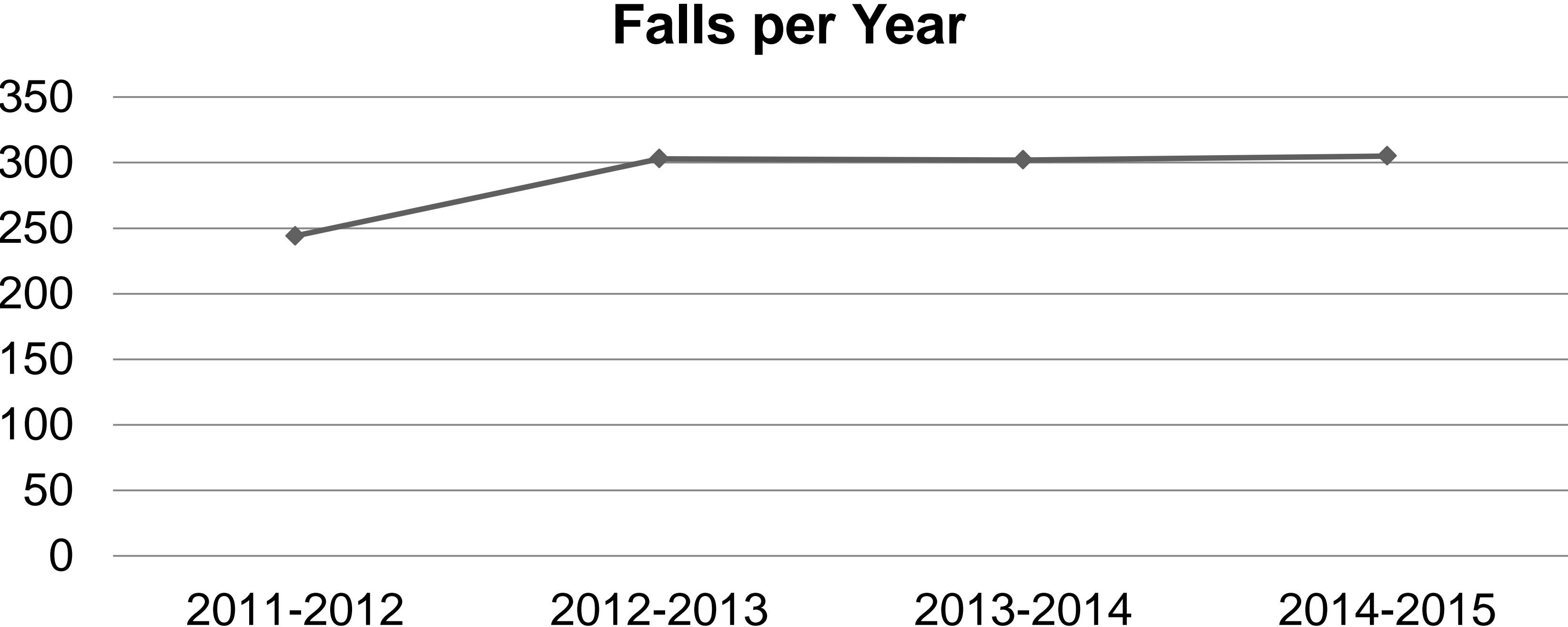
Total Referrals for OT, PT, Pharm



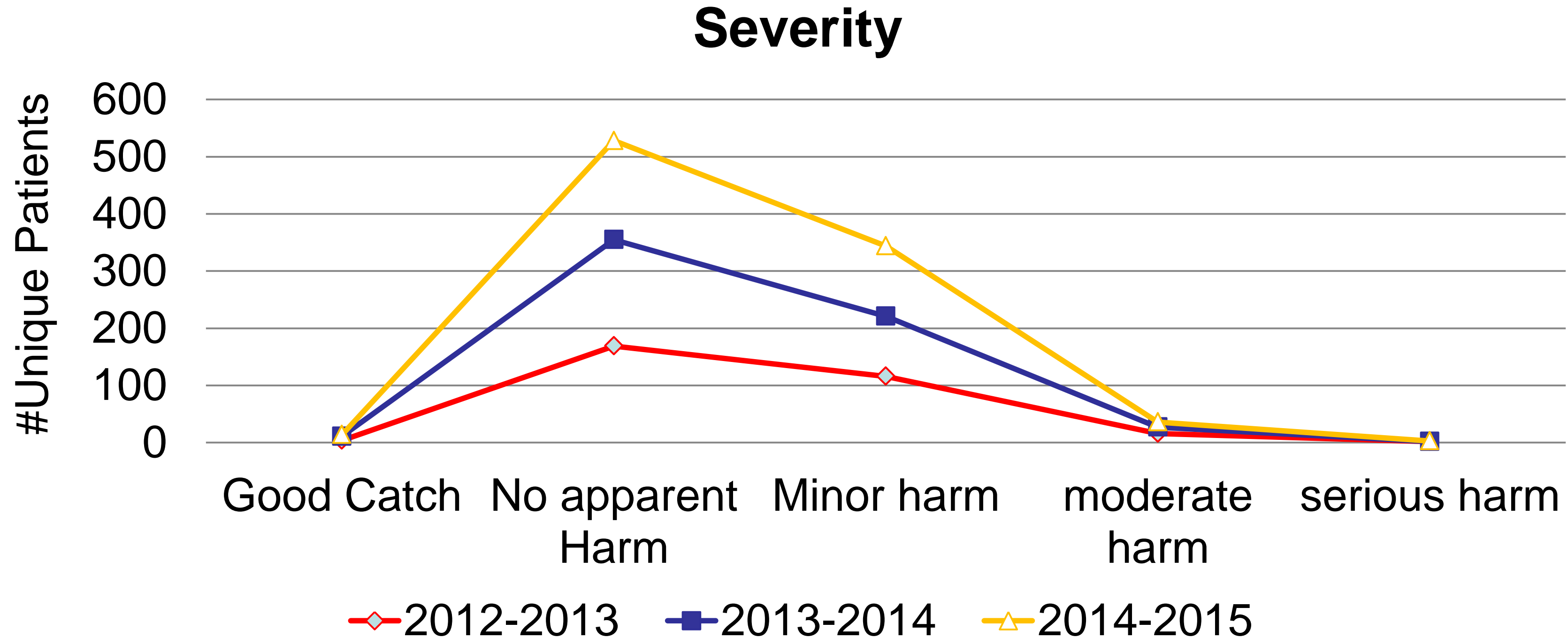
Falls Reported and Post Fall Documentation



Number of Falls per Fiscal Year



Severity level of Falls reported



System Enabling Data Integrity

Increase collaboration and communication with interprofessional team, patient and family.

1. Documentation in one consistent place for easy review and gathering of data
2. Improve quality of information by providing more details around specific questions
3. Questions focus more on mental health clients

Lessons Learned/Next Steps

Challenges/Lessons Learned:

- Physicians and nurse practitioners do not have access to document in the Plan of Care
- Pilot was only done on the two geriatric units
- Front line staff were not included in the development of the new tool.

Next Steps:

- Validate the tool
- Continue to monitor number of falls vs number of post-fall assessments
- Review/Update interventions for OT/PT and Pharmacy based on documentation needs.
- Continue to provide data back to the CNS and Managers from the Falls Prevention Group.

Thank you