OMECO/NHS IM Residency Program OUTPATIENT Medication Reconciliation

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BACKGROUND

Medication reconciliation is the process of identifying the most accurate list of medications a patient is currently taking including medication name, dosage, frequency and route, by comparing the medical record to an external list of medications obtained from a patient, hospital or other provider (1). According to a study published in the British Medical Journal in 2016, medication errors were the third leading cause of death in the world and accounted for 250,000 deaths in 2016 alone (2). According to Andel et al in 2012, drug-related errors were the single most common type of medical error. In 2010 in the United States, medication errors cost healthcare consumers 19.5 billion dollars(3). Additionally, polypharmacy which is the use of multiple prescription drugs is increasingly common, with 10% of the population and 30% of older adults in the United States taking five or more drugs simultaneously. (4) It is therefore critical for patient safety that an updated and accurate medication list is obtained at every clinic visit. This will allow providers to ensure all medications patients are taking are necessary and patients are taking their medications appropriately. The Internal Medicine Residency Clinic evaluated medication reconciliation by creating a report; over a period of six months, only 63.56% of patients had a medication reconciliation complete during their office visit.

AIM STATEMENT

The goal of this project is to increase the percentage of medication reconciliations that are completed in our outpatient resident clinic to a goal of 85% within 6 months.

PROJECT DESIGN

- This project was initiated in order to ensure the medication reconciliation would be completed for all patients in the Internal Medicine residency outpatient clinic.
- The steps to improve this process will include discussing the patient's current medication list that includes vitamins, over the counter supplements, over-the counter drugs, and vaccines in addition to prescribed medication.
- This process also includes verifying that these medications are being taken as prescribed.
- And finally, updating the medication reconciliation page in Cerner to reflect the current regimen the patient is taking.

Step 1:

TEST, ADMISSION ×						🔶 List 🔿 🛅 Recent	• Name
ZZTEST, ADMISSION Allergies: Cats, cephalexir Adv Dir Type:	n, sulfa drugs, Grass Sex:F	31 years Height: EMALE Weight: cs: (15) New Contact: Vie	MRN:1069719 DOB:2/4/1990 w Details PCP:	Fin#:2000254870 Loc:NHST CCU2; 235; B ATTND:TestDrPearce, Bob	Enc:Swingbed [Admit: <no -="" <br="">C . Code Status:Not yet docu</no>	Inpatient admit date>] sb COVID-19: <not ordered=""></not>	. Phone:
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ocumentation + Add	Present Illness						
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rowth Chart	Home Medications (1)		V				
bor and Delivery Summary	Labs	Font • Size	- <u>× 6</u> 🖻 B I <u>U</u>				
enatal Summary	Diagnostics (0)						
ewborn Discharge Summary	Pathology (0)						
	Microbiology						

Step 3:

The Details

	Order Name/Details			Status		D.		₽ş 1	♥ Order Name/Details	Status
	Medications				1 1	-				
		2.5 mg/3 mL (0.083%) inhala g6hr, PRN: for wheezing, 25 EA		Prescribed	\odot	0	0	6	albuterol (albuterol 2.5 mg/3 mL (0.083%) inhalation solution) 2.5 mg = 3 mL, INH, q6hr, PRN: for wheezing, 25 EA, 2 Refill(s) < Notes for Patient >	Prescribed
	aspirin (aspirin 81 m 81 mg = 1 tab(s), PO	ng oral tablet) 0, BID, 90 tab(s), 0 Refill(s)		Documented	۲	0	0	3	aspirin (aspirin 81 mg oral tablet) 81 mg = 1 tab(s), PO, BID, 90 tab(s), 0 Refill(s) < Notes for Patient >	Documen
		astatin 20 mg oral tablet)), Daily, 90 tab(s), 0 Refill(s)		Documented	0	0	0			
		Ion Perles 100 mg oral capsu O, TID, for 7 day(s), 21 cap(s),		Documented	۲	0	0	3	benzonatate (Tessalon Perles 100 mg oral capsule) 100 mg = 1 cap(s), PO, TID, for 7 day(s), 21 cap(s), 0 Refill(s) < Notes for Patient >	Documer
	etanercept (Enbrel 50 mg, SubQ, qWeek	Prefilled Syringe 50 mg/mL : c, 3.92 mL, 11 Refill(s)	subcutaneous solution)	Prescribed	۲	0	0	ī.	etanercept (Enbrel Prefilled Syringe 50 mg/mL subcutaneous solution) 50 mg, SubQ, qWeek, 3.92 mL, 11 Refill(s) < Notes for Patient >	Prescribed
		rolol succinate 25 mg oral tal), Daily, 30 tab(s), 0 Refill(s)	olet, extended release)	Documented	۲	0	0	3	metoprolol (metoprolol succinate 25 mg oral tablet, extended release) 25 mg = 1 tab(s), PO, Daily, 30 tab(s), 0 Refill(s) < Notes for Patient >	Documen
D •		razole 10 mg oral delayed rel), Daily, 30 cap(s), 0 Refill(s)	ease capsule)	Prescribed	۲	0	0	ī.	omeprazole (omeprazole 10 mg oral delayed release capsule) 10 mg = 1 cap(s), PO, Daily, 30 cap(s), 0 Refill(s) < Notes for Patient >	Prescribed
	warfarin (warfarin 2			Prescribed	۲	0	0	۵.	warfarin (warfarin 2 mg oral tablet) 2 mg = 1 tab(s), PO, Daily, 90 tab(s), 0 Refill(s) < Notes for Patient >	Prescribe

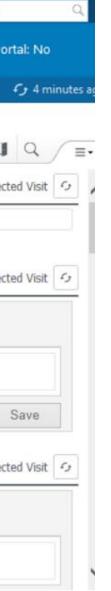
Acknowledge Remaining Home Meds Do Not Continue Remaining Orders

0 Missing Required Details 1 Unreconciled Order(s) Dx Table

Reconcile and Plan Sign Sign And Print Cance



- A document was made detailing how to properly complete a medication reconciliation. This document included screenshots and detailed instructions. This document will be made available in the clinic for medicine residents as reference.
- The education initiative will begin with quarterly didactic sessions with current residents and will be instituted with every subsequent class of incoming interns with the goal of achieving and maintaining a compliance score of 85% or greater in regards to successfully completing a medication reconciliation for all patients in the outpatient clinic.



Step 2:

Adv Dir Type:		MALE Weight:70 kg DOB:1/1/1990 Loc:MC	B2 IM Residency		09:00:00 CDT] Phone:(918) 555- <not ordered=""> Patient Portal: No ACO:</not>
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Provider Workflow	🗚 🐚 🖣 🐚 🔍 🔍 100%				
Provider View			imary × +		👗 No Severity 🕒 📳 🔍
Results Review	Discharge Workflow X	Clinic X Hospital Workflow X Blood Bank Sun	imary × +		A NO Sevency V U
Diagnoses Problems	Ŧ	Hama Madiationa (0)			+ All Visits 5
Orders Plan of Care + Add	Chief Complaint	Home Medications (8)			
Medication List + Add	Subjective/History of		No Health Plans Fo	ound Status: 🗸 Meds History 🚺 A	Admission 🗸 Outpatient View Del
Documentation + Add	Present Illness	Medication	∧ Compliance	Supply Re	Responsible Provider
Note Scan Import	Review of Systems Objective/Physical Exam	 albuterol (albuterol 2.5 mg/3 mL (0.083%) inhalation solution) 2.5 mg = 3 mL, INH, q6hr, PRN: for wheezing, 25 EA, 2 Refill(s) 	-		- (2)
Allergies + Add	New Order Entry	aspirin (aspirin 81 mg oral tablet) 81 mg = 1 tab(s), PO, BID, 90 tab(s), 0 Refill(s)	-	-	-
Histories Interactive View 1&0	Problems Vital Signs	<pre>atorvastatin (atorvastatin 20 mg oral tablet) 20 mg = 1 tab(s), PO, Daily, 90 tab(s), 0 Refill(s)</pre>			
Form Browser	Documents Recommendations	benzonatate (Tessalon Perles 100 mg oral capsule) 100 mg = 1 cap(s), PO, TID, for 7 day(s), 21 cap(s), 0 Refill(s)	-	0 Days Esti	
MAR Summary	Forms	etanercept (Enbrel Prefilled Syringe 50 mg/mL subcutaneous solution) 50 mg, SubQ, qWeek, 3.92 mL, 11 Refill(s)	-		Kaushik, Prashant MD
Health Maintenance Growth Chart	Allergies (1) Home Medications (8)	metoprolol (metoprolol succinate 25 mg oral tablet, extended release) 25 mg = 1 tab(s), PO, Daily, 30 tab(s), 0 Refill(s)	-	-	7
Labor and Delivery Summary	Labs	c omeprazole (omeprazole 10 mg oral delayed release capsule) 10 mg = 1 cap(s), PO, Daily, 30 cap(s), 0 Refill(s)	m i	0 Days Esti	TestDrWorkman, Nicole
Prenatal Summary Newborn Discharge Summary	Diagnostics (5) Pathology (0)	warfarin (warfarin 2 mg oral tablet) 2 mg = 1 tab(s), PO, Daily, 90 tab(s), 0 Refill(s)		43 Days Es	No. 1

Step 4:

			_
d	Status: 🗸 Meds History 🛛 🕕 Admission	V Outpatient	√iew
	Supply Re Respon	sible Provider	

+ All Visits 4

Reconcile and	Plan	Sign	Sign And Print	Cancel

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NEXT STEPS

- Obtain quarterly individualized reports of medication reconciliation percentage completion with feedback on goal >85% completion.
- Educate incoming interns at orientation on quality improvement projects and required medication reconciliation completion for clinic visits.
- Re-evaluate semi-annually to determine if additional steps to improve accurate medication reconciliation completion are necessary.

RESULTS

Results will be evaluated quarterly by resident and semi-annually to determine if additional PDSA cycles are necessary to implement effective change.

REFERENCES

- <u>https://www.cms.gov/regulations-and-guidance/legislation/ehrincentiveprograms/</u> downloads/7 medication reconciliation.pdf
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- <u>https://pubmed.ncbi.nlm.nih.gov/23155743</u>
 Andel C, Davidow SL, Hollander M, Moreno DA. The economics of health care quality and medical errors. J Health Care Finance. 2012
 Fall;39(1):39-50. PMID: 23155743.
- 4. https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC5663207/

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