

Appendix 1: Pharmaceutical prescription methods and results

Measure

Patients' prescriptions that had been filled were obtained from their pharmacies directly. We collected information on patients' filled prescriptions six months prior to enrollment to six months post-enrollment. Adherence to treatment was assessed for the six months post-enrollment by calculating the percentage of days out of the 180 day period for which a patient had a filled prescription.[23] Medications to treat chronic conditions were considered for inclusion in analysis.

Medication Class	Medication Name
ACE inhibitor	Enalapril Maleate
	Lisinopril
	Ramipril
Alpha blocker	Tamsulosin
	Tamsulosin HCL
Alpha1 adrenergic blocker	Doxazosin Mesylate
Alpha2 delta ligand	Lyrica
Aminoketone antidepressant	Bupropion
	Bupropion HCL
	Bupropion HCL ER
	Bupropion XL
	SR Bupropion
Angiotensin receptor blocker (ARB)	Candesartan
	Lorsartan Potassium
	Losartan
	Losartan -HCTZ
	Losartan HCTZ
	Losartan Potassium
	Losartan-HCTZ
	Valsartan
Antiandrogen	Bicalutamide
Antiarrhythmic drug	Amiodarone
	Flecainide Acetate

Appendix Table 1: Included Medications	
Medication Class	Medication Name
Anticoagulant	Enoxaparin Sodium
	Jantoven
	Warfarin Sodium
	Xarelto
Anticonvulsant	Carbamazepine
	Carbamazepine ER
	Gabapentin
	Lamotrigine
	Topiramate
	Zonisamide
Anxiolytic antianxiety agent	Buspirone
Atypical antipsychotic	Latuda
	Quetiapine
	Quetiapine Fumarate
Beta blocker	Atendlol Chlorthalidone
	Atenolol
	Bisoprolol
	Carvedilol
	ER Metoprolol
	Metoprolol ER
	Metoprolol ER Succinate
	Metoprolol SUCC ER
	Metoprolol Tart
	Metoprolol Tartrate
	Metoprololhydrochloroth
	Timolol Maleate
Biguanide	Metforman
	Metformin
	Metformin ER
	Metformin HCL

Appendix Table 1: Included Medications	
Medication Class	Medication Name
	Metformin HCL ER
	metformin
Bisphosphonate	Alendronate
	Alendronate Sodium
Calcium channel blocker	Amlodipine
	Amlodipine Besylate
	Diltiazem HCL ER
	Nifedipine
	Verapamil HCR ER
Central alpha agonist	Clonidine HCL
Central muscle relaxant	Methocarbamol
Class 1b antiarrhythmic drug	Lidocaine
DDP4 inhibitor + biguanide	Janumet XR
Dibenzazepine	Tegretol XR
Digitalis glycoside	Digoxin
Disease modifying antirheumatic drug (DMARD)	Hydroxychloroquine Sulfate
Diuretic	Hydrochlorothiazide
	Hydrochlorothiazide
	Metolazone
Fibric acid	Fenofibrate
	Fenofibrate Micronized
Janus kinase (JAK) inhibitors	Xeljanz
Leukotriene receptor antagonists	Montelukast Sodium
Loop diuretic	Furobemide
	Furosemide
	Torseamide
Nitrate	Isosorb Mono ER
	Isosorbide MN ER
Nonergoline dopamine agonist	Pramipexole
Oral diuretic	Triamterene-HCTZ

Appendix Table 1: Included Medications	
Medication Class	Medication Name
P2Y12 inhibitor	Clopidogrel
	Clopidogrel Bisulfate
Phenylpiperazine antidepressant	Nefazodone HCL
Phosphodiesterase 4 (PDE4) inhibitors	Otezla
Potassium sparing diuretic	Spirolactone
SNRI	Desvenlafaxine ER
	Duloxetine DR
	Duloxetine HCL
	Duloxetine Hcl
	ER Venlafaxine
	Escitalopram Oxalate
	Venlafaxine XR
	Venlafaxin XR
	Venlafaxine ER
	Venlafaxine HCL ER
	Venlafaxine XR
SSRI	Citalopram
	Citalpram
	Fluoxetine
	Fluoxetine HCL
	Paroxetine
	Paroxetine HCL
	Sertraline
	Sertraline HCL
Selective estrogen receptor modulator (SERM)	Raloxifene HCL
	Tamoxifen
Statin	Atorvastatin
	Atorvastatin Calcium
	Locastatin
	Lovastatin

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Medication Class	Medication Name
	Pravastatin Sodium
	Rosuvastatin Calcium
	Simvastatin
	Vytorin
Sulfonylurea	Climepiride
	Glimepiride
	Glipizide
	Glipizide ER
	Glipizide XL
Tetracyclic antidepressant	Mirtazapine
Thiazide diuretic	Chlorthalidone
Thyroxine; T4 (synthetic)	Levothroxine
	Levothyroxine
	Levothyroxine SOD
	Synthroid
Triazolopyridine antidepressant	Trazodone HCL
Tricyclic antidepressant	Amitriptyline HCL
	Cyclobenzaprine HCL
	Cyclovenzaprine HCL
	Cyclovenzaprine HCL
	Nortriptyline
	Nortriptyline
	Nortriptyline HCL
Triiodothyronine	Liothyronine Sodium
Valeric acid	Gemfibrozil
Missing	Missing
Other / Unknown	Amsulosin
	Isometh-apap-dichlor-
	Metromin HCL
	Oxycodone 5MG IR Tabs

Statistical Analysis

Adherence to medications was assessed by medication class (i.e. if patient had multiple medications within a class, average adherence was calculated). Adherence was modeled using a hierarchical generalized linear model where the outcome was a patients' medication class adherence six months post enrollment. The model was clustered by patient, as patients could have multiple classes of medication, and adjusted by their adherence to the medication class in the six months prior to enrollment and intervention arm. Patients who did not have the medication class in the prior period were set to zero for baseline and a missing indicator was assessed in the model to address this. Patients with missing pharmacy data (e.g. their pharmacy

Adherence Results

Similar rates of medication counts, medication classes and adherence were seen between groups in the six months prior to the encounter of interest (76% of days covered in patients in the ICAN group vs. 71% control) was unreachable for data request) were not included in the analysis.

Appendix Table 2: Analysis of percent of days covered of medication classes by intervention.			
	ICAN (N=53)	Pre- Intervention (N=27)	p value
Count of medications prior to encounter			0.57
Mean (SD)	3.6 (2.6)	4.2 (3.3)	
Median (IQR)	3 (2, 5)	4 (2, 5)	
Count of medication classes prior to encounter			0.54
Mean (SD)	3.4 (2.3)	3.9 (2.9)	
Median	3 (1, 5)	4 (2, 5)	
Adherence (PDC) prior to encounter			0.94
Mean (95% CI)	55% (50, 60)	54% (50, 60)	
Count of medications post encounter			0.37
Mean (SD)	3.8 (2.5)	4.1 (2.0)	
Median	3 (2, 5)	4 (3, 5)	
Count of medication classes post encounter			0.36
Mean (SD)	3.6 (2.3)	3.9 (1.8)	
Median	3 (2, 5)	4 (3, 5)	

Appendix Table 2: Analysis of percent of days covered of medication classes by intervention.			
	ICAN (N=53)	Pre- Intervention (N=27)	p value
Adherence (PDC) post encounter			0.56
Mean (95% CI)	75% (70, 80)	71% (60, 80)	
Adjusted adherence (PDC) post encounter[^]			0.43
Mean (95% CI)	76% (70, 80)	72% (60, 80)	

Acronym: PDC Percent of Days Covered

* Prior and post encounter periods are each 6 months long.

[^] ANCOVA with random effect of clinician and adjusted by prior 6 months adherence and intervention.