



Community Pharmacist Provision of Chronic Care Management Services for Medicare Beneficiaries with Uncontrolled Hypertension

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Background

- Chronic Care Management (CCM) is a billable patient care service for Medicare beneficiaries with two or more chronic health conditions
- Pharmacists are not eligible to bill CMS directly for CCM services but may be included among members of the CCM care team
- Northeast Iowa Family Practice Center (NEIFPC) created a collaborative practice and business agreement with Greenwood Pharmacy to provide CCM services to shared Medicare patients with uncontrolled hypertension

Objective

- Measure and describe the billing experience of a community pharmacy providing CCM services in collaboration with a Family Medicine physician practice
- Measure changes in blood pressure control among patients receiving CCM services over a 9 month period

Methods

- Prospective cohort study – 9 month duration
- Created collaborative practice agreement (CPA) and independent contractor business agreement
- Community pharmacists (CPs) documented assessments and interventions directly in NEIFPC electronic health record
- Time captured electronically (Dulcian Health[®])
- Revenue sharing formula
- Eligible patients mailed informational letter with option to not participate
- Subject inclusion criteria:
 - enrolled in NEIFPC CCM program
 - received prescriptions from Greenwood Pharmacy
 - BP >130/80 mm Hg
- Project approved by NEIMEF Ethics Committee as a quality improvement project
- Project was funded by Iowa Pharmacy Association Foundation

Table 1. Participant Demographics

Characteristic	Patients (N=26)
Age – yr	70.7±18.9
Male sex – no. (%)	13 (50)
Diabetes – no. (%)	9 (34.6)
CAD or PAD – no. (%)	9 (34.6)
Prior stroke or TIA – no. (%)	3 (11.5)
eGFR ≤30 ml/min – no. (%)	4 (15.4)
Smoker/tobacco use – no. (%)	2 (7.7)
Alcohol use > 2 drinks/day – no. (%)	2 (7.7)
NSAID use – no. (%)	4 (15.4)
Number of antihypertensives per patient – no. %	
0	4 (15.4)
1	3 (11.5)
2	12 (46.2)
≥3	7 (26.9)

Participant Flow

- 45 eligible patients
- 5 excluded at MD request
- 1 deceased before study start
- 3 withdrew after informational letter
- 4 withdrew at pharmacy
- 6 did not respond to multiple contacts
- 26 received at least one CP encounter – final data set

Table 3. Time Effort, Billing and Revenue for Shared CCM Service

Month	If NEIFPC Only			Total (Greenwood Pharmacy and NEIFPC)				
	Total Minutes	Claims Billed	Claim Revenue(\$)	Total Minutes	Claims Billed	Claim Revenue(\$)	NEIFPC Revenue(\$)	Greenwood Revenue(\$)
Jul	458	10	394	697	14	662	440.64	221.36
Aug	388	5	203	1509	33	1347	378.38	968.62
Sep	524	10	454	966	21	951	525.08	425.92
Oct	331	5	203	547	11	437	219.31	217.69
Nov	445	8	452	677	16	700	482.94	217.06
Dec	378	7	289	477	11	413	313.33	99.67
Jan	310	4	172	456	8	296	200.77	95.23
Feb	178	2	62	303	9	279	114.22	164.78
Mar	378	6	306	779	19	757	382.79	374.21
Total	3390	57	2535	6411	142	5842	3057.46	2784.54

Figure 1. Example of CCM Revenue Sharing Scenarios

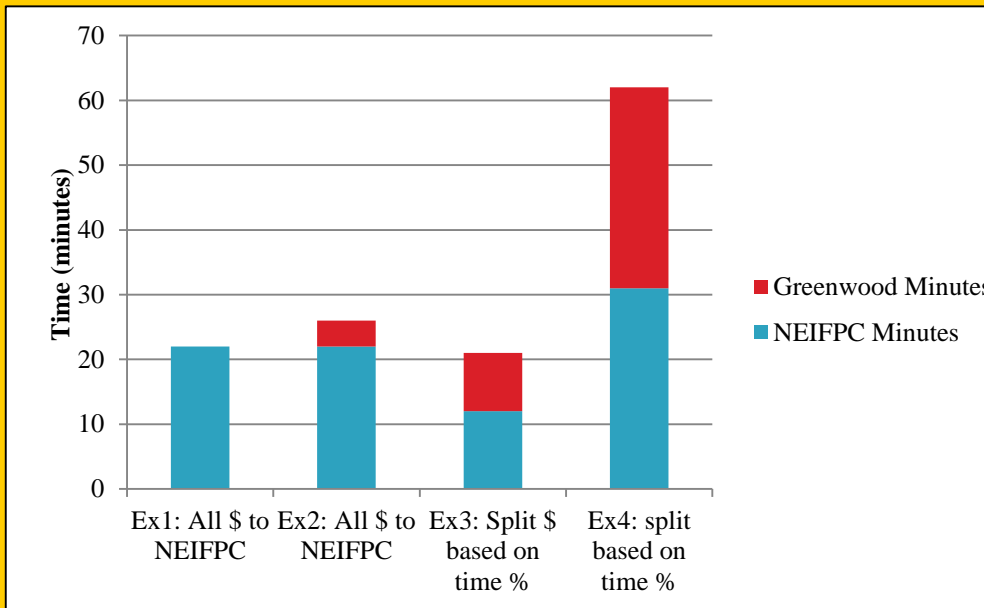


Table 2: CCM Billing Examples

Example	Distribution of CCM Revenue
Ex1: NEIFPC meets billing threshold with no CP time logged	NEIFPC 100%
Ex2: NEIFPC meets billing threshold independent of CP time logged	NEIFPC 100%
Ex3: Both NEIFPC and CP time required to meet billing threshold	Prorated based upon CCM time for claim
Ex4: Both NEIFPC & CP time necessary to meet higher complex billing threshold	Prorated based upon CCM time for claim

Table 4. Baseline and Final Blood Pressure (mm Hg)

Baseline SBP	Baseline DBP	Final SBP	Final DBP
140.38 ± 10.83	77.92 ± 9.20	133.09 ± 11.48†	74.85 ± 8.23‡

*BP measurements are mean of 2 values at baseline and study end
†P=0.020, ‡P=0.022 (paired T-test)

Financial Results

- 142 CCM claims billed (Table 3); 100 were 99490 (CCM), 26 were 99487 (Complex CCM), 16 were 99489 (additional Complex CCM)
- Total CCM revenue was \$5842 (NEIFPC \$3390, Greenwood \$2785)
- Without community pharmacy participation, NEIFPC would have only been able to bill 57 claims for revenue of \$2535
- CP CCM revenue equated to payment rate of \$55.30/hr for community pharmacist time
- Revenue sharing formula results (NEIFPC:Greenwood): total revenue (52.3%:47.7%) was almost identical to prorated distribution of total CCM time (52.9%:47.1%)

Clinical Results

- There were 98 patient care notes documented by CPs and 18 changes in blood pressure medication
- Pre-post comparison showed significant improvement in blood pressure of study cohort (Table 4)

Limitations

- Lack of comparison group limits generalizability
- NEIFPC CCM activities encompassed more than hypertension management

Summary

- Collaborative CCM hypertension project between community pharmacy and physician clinic was successful at improving BP in financially viable manner
- Physician clinic CCM billing was increased by partnership with community pharmacy
- Community pharmacists were successful in modifying drug therapy and documenting patient care notes in clinic EHR
- Future CCM revenue sharing may be simplified by using proration based on overall time rather than by per claim analysis of time effort