Implementation of Care Teams in a Resident Continuity Clinic:
Innovations in Patient Continuity, Chronic Disease Management, and Outpatient Medical Education

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Background

Resident Clinic Characteristics

- 2 practices with 115 residents
- 9000 patients with resident PCP
- 4000 clinic sessions/year
- 15000 office visits/year

	Traditional (Until AY2015)	6+2 (From AY2016)
Clinic Session Distribution	Variable – sporadic ambulatory blocks, elective time, some inpatient rotations	Consistent – every "2" block + elective
Inter-Visit Care	Variable; heavy burden on 2 dedicated clinic residents on "firm block"*	Opportunity to distribute workload across more residents

*Firm block is a 2-week ambulatory rotation supervised by a dedicated outpatient attending. 2 residents served as primary source of daily coverage for resident patient issues including calls, forms, results follow-up, med refills, etc.

Problem

- Traditional system led to poor resident physician continuity in clinic and between visits.
- Residents lacked ownership of their patients after the office visit and engagement in inter-visit care.
- Residents on "firm block" provided inter-visit care for thousands of patients with whom they had no prior relationship.
- No clearly identifiable attending who was ultimately responsible for any given patient.
- At end of academic year, patients were randomly and in ad hoc fashion reassigned to incoming interns.
- Schedules of incoming interns could not be opened until mid-June.

Above factors resulted in delayed care, lapses in chronic care management, lower attainment of standard goals for chronic diseases, and patient dissatisfaction.

Objectives

Our aim was to transform resident clinic structure into patient care teams (PCTs) that manage small groups of patients.

In creating PCTs, our 3 primary objectives were to:
- Formalize continuity relationship between attendings, residents, and patients
- Develop a system of reliable transitions and inter-visit care
- Explore if such a system improved chronic disease metrics

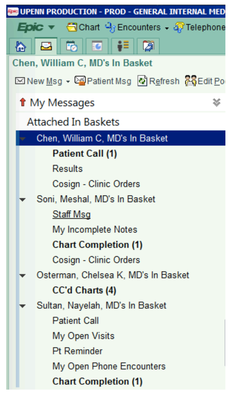
Innovation

1. Creation of Patient Care Teams (PCTs)
- In AY2016, the Internal Medicine Residency program switched to a block scheduling system of 6+2. This system by design creates 4 cohorts of residents who rotate through clinic in predictable succession.
- We assigned 4 residents, one from each cohort, to a longitudinal patient care team (PCT) to cover the daily needs of about 250-300 patients.
- Each PCT was assigned an outpatient continuity attending who supervises the care of patients and serves as a longitudinal educator for each resident during 3 years of training.

Team	Attending	Chestnut	Walnut	Locust	Spruce
PCT 1	Balasta	Resident A	Resident B	*Intern #1*	Resident D
PCT 2	Aizenberg	*Intern #2*	Resident X	Resident Y	Intern Z
PCT 3	Palecek	Resident E	*Intern #3*	*Intern #4*	Resident H

2. Optimize Transitions of Care: Early Scheduling and Whole Panel Handoffs
- At the end of AY2015, we reassigned entire panels of graduating residents to incoming "dummy interns".
- The 6+2 structure & PCTs allowed us to know exactly how many interns we would have in clinic.
- We led a massive effort to open schedules for AY2016 before end of academic year for residents and "dummy interns."
- When new academic year started, we changed the "dummy intern" schedules to the names of new interns.

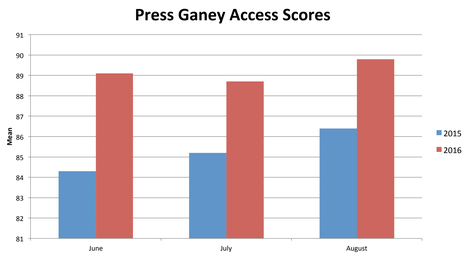
3. Operationalize a Coverage System: Leveraging the EMR
- We worked with EMR staff to develop a covering group structure for PCTs.
- Each provider has an EMR "inbox" where all patient calls, results, consultant notes, prescription requests, etc. are routed.
- Access to individual inboxes were granted to all members of a PCT and their continuity attending.
- Office staff, nurses, residents, and attendings were educated on new workflow that emphasized continuity and utilization of PCTs.



Results: Patient Scheduling

Our intervention dramatically increased the number of available appointments. This was correlated to a significant increase in Press Ganey patient access satisfaction scores.

	AY2016	AY2017
Schedule released to staff	6/21/15	4/26/16
Available summer appointments as of June 1st	0	1312
Patients scheduled for a summer appointment as of June 1st	0	449



Results: Inter-visit Care

We tracked the amount of time it took for an "inbox" message (patient call, result, refill request, etc.) to be completed. This typically reflects that a patient matter has been addressed to completion.

	AY2016	AY2017
Time to "Done"	11,605 min (8 days)	590 min (9 hours)

Results: Chronic Disease Metrics

We developed biannual report cards for residents & their PCT to track their performance with regards to chronic disease management.

PCT 3 Attg: Palecek	Team	Practice Residents	Practice Attendings
Characteristics			
Panel Size	286	265	N/A
Average Charlson Score	1.09	1.04	0.9
Chronic Disease Measures			
Diabetics with A1C < 9	70.5%	75.4%	85.24%
HTN patients compliant with HEDIS guidelines	69.9%	69.8%	79.4%
Screening/Prevention			
Eligible Patients who had Colonoscopy Completed	63.5%	68.2%	83.1%
Eligible Patients who had Mammogram	57.8%	67.8%	78.7%
HIV Screening Completed	70.2%	76.2%	67.7%

Across the whole clinic, there was no significant change in A1c or mammogram screening

	AY2016	AY2017
Average A1c	7.8	7.9
Mammogram screening	70.2%	67.8%

Discussion

- Restructuring residency program scheduling to an X+Y block system provided an opportunity to reorganize and redefine patient care.
- Our large academic program successfully transitioned to a shared patient panel strategy.
- Whole-panel reassignments from outgoing senior residents to interns, along with other IT initiatives led to significant improvement in lapsed care around the end of year transition.
- Shifting the responsibility of inter-visit care to a "Patient Care Team" led to significant reductions in time to address patient issues.
- Measures of chronic disease care did not change 1 year after PCTs were implemented.

Next Steps

- Establishing a system for formal patient hand-offs between outgoing residents and incoming interns.
- Capitalizing on the PCT structure to create a population management curriculum for residents.
- Utilizing PCT data to identify and develop QI projects aimed at improving specific chronic disease measures within each PCT.