

From the Pharmacist's Perspective...

- Comprehensive Medication Management provided by a clinical pharmacist embedded into 4 large medical home practices clinic
- Comprehensive Medication Management provided by a clinical pharmacist established outside the medical home practice clinic(the CCNC model)

Embedded Model...

- Patient-centered, integrated approach with multi-specialty physicians, nurse practitioners, physicians assistants, clinical pharmacists and nurses
- Based on the patient's drug therapy needs, care is delivered by the pharmacist under collaborative drug therapy management
- Integrated approach whereby any member of the team may refer a patient to pharmacist
- Electronic medical records for documentation that allows for the coordination of care and clear establishment of patient's goals of therapy

Referral Process...

- Not for all patients.
- Identify patients not meeting therapeutic goals
- Patients experiencing drug therapy problems (ADRs)
- Patients discharged from the hospital
- Patients with complex medication regimens and have a poor understanding their regimen
- Patients with chronic diseases and chronic medication therapies that require significant self management skills and educations.

Collaborative Drug Therapy Management

- Patient-specific, evidenced-based driven, outcomes-oriented developed plan of care for the patient to allow the patient to meet therapeutic goals
- Written agreement between the physician and the pharmacist to allow for drug therapy modifications under the supervision of the physician
- Assessment of drug therapy problems and the development of an individualized medication plan of care with collaborative goals set
- Periodic follow up to address any new medication problems, measure against goals of therapy and adjust plan of care
- Careful coordination with all team members to advise of progress of patient's plan of care with referral process in place

Virtual Model...

- Pharmacist not physically located in the medical home practice
- Broader coordination of care to include traditional team members and case managers
- Traditional referral base with enhanced focus on transition of care patients
- On average, the patient discharged from the hospital with have 5 medication discrepancies when comparing the discharge regimen with the home regimen

Coordination of Care...

- Significant emphasis placed on making sure the patient with medication related problems on discharge gets to a primary care provider after discharge for follow up
- Communication of medication related problems between the hospital provider and the primary care provider to develop the patient's plan of care
- Efficiency of the team improved, more data with which for the team to make better decisions in conjunction with the patient

Outcomes

- Patient specific
- Traditional clinical such as A1Cs, INRs within range, BPs, etc.
- Patient satisfaction with care
- Reduction in hospital readmissions
- Overall, healthcare cost savings (mostly from reducing hospitalizations and ER visits). Avoid the “silo effect.”

Outcomes

- Diabetes Management
 - 31 patients
 - Baseline A1C 8.6%
 - Year Four A1C 7.1%
 - Baseline % pts with A1C < 9% 57%
 - Year Four % pts with A1C <9% 91%
 - Baseline % pts with A1C < 7% 36%
 - Year Four % pts with A1C < 7% 52%
 - Baseline % pts with flu shot 48%
 - Year 4 % pts with flu shot 95%
 - Baseline % pts with eye exam 21%
 - Year 4 % pts with eye exam 73%
 - Baseline LDL 143
 - Year 4 LDL 91
 - Baseline % pts with LDL <100 44%
 - Year 4 % pts with LDL <100 71%
 - Baseline ave BP 135/83
 - Year 4 ave BP 128/80

Total Annual Average Cost /Pt	Baseline	Year 4
MTMS	\$0	\$550
Medications	\$2,611	\$3,364
Medical	\$9,316	\$4,004
Total	\$12,280	\$7,918

	Baseline	Year 1	Year 2	Year 3	Year 4
# of Hospital Visits	25	21	10	8	7
Total Medical Claims	1,432	1,566	1,427	923	1561
Total Medical Claim \$	\$285,271	\$226,775	\$138,396	\$71,975	\$113,493
Average \$ per claim	\$199	\$145	\$97	\$78	\$73

	Baseline	Year 1	Year 2	Year 3	Year 4
MD office Visits	146	194	190	156	159
Avg MD visits/year	4.9	6.5	6.3	5.2	5.3
Total MD office Visit \$	\$6,144	\$7,293	\$7,595	\$5,727	\$7,149
Avg MD office visit \$	\$42	\$38	\$40	\$37	\$45

- Medication Therapy Management
 - 1,671 patients
 - 3,054 interventions
 - \$ 1,825,102.69 in healthcare savings documented
 - ROI is 1:8 (net savings \$1032 per patient)
 - 46% interventions were prescriber consults
 - 54% interventions were patient education/counseling

Interventions

- 6% Initiation of More Cost Effective Medication
- 15% Initiated a New Medication
- 7% Discontinued Medication
- 9% Changed Medications
- 10% Increased Dose/Duration
- 5% Decreased Dose/Duration
- 12% Altered Compliance
- 36% Altered Administration Technique

- Anticoagulation Management
 - Total of 2,444 patients
 - 75% INRs in therapeutic range
 - Days in range 81%
 - 11.8% Bleeding episodes
 - 5.9% Minor
 - 1.2% Significant (handled in clinic)
 - 0.6% Major (ER or Hospital)
 - 0.8% Thrombotic episodes

SUMMARY

- Can be accomplished with the pharmacist embedded in the practice or physically separate
- Collaborative drug therapy management “supercharges” the model
- Truly an integrated, coordinated approach to enhance the patient’s ability to meet their treatment goals
- Patients with the most chronic disease states dependent on the most chronic medications benefit the most
- Quality of care and outcomes driven