Clinical Pharmacist Services to the Medical Home Model

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This paper describes a model for clinical pharmacy services for a medical home model. The medical home model is incorporated within the services paid for by the Medical Services for Indigent (MSI) program in Orange County, California. Clinical pharmacy support is provided by Craig Stern, PharmD, MBA and Pro Pharma Pharmaceutical Consultants, Inc. for formulary, prior authorization, clinical screening and provider communication, as well as financial oversight and management of the drug spend.

What is this model and how does it relate to the medical home concept?

The Medical Services Indigent program (MSI) in Orange County California is a safety-net system that assigns uninsured and low-income (less than 200% of Federal Poverty Level, FPL) residents to patient-centered medical homes. A safety-net based system of care is a program for providing care when no other medical insurance is available, e.g., Medi-Caid, Medicare, third-party insurance, etc. Medical services are paid by a County agency, MSI, which also pays for acute, subacute and ambulatory care services. The County provides case management, a team-based approach for treating disease, and increased access to primary and specialty care for the medical home patients. The County pays providers enhanced fee and pay-for-performance incentives to ensure delivery of comprehensive treatment; however, some of the providers are paid capitation rates to decrease costs so more patients can access services. Physicians have access to medical encounters, pharmacy claims, laboratory values and enrollment data through ClinicConnect™, a web-based warehouse of patient data. Emergency room physicians have access to similar data sets through ER-Connect™ to allow them to observe a complete profile for patients when they arrive at the emergency department.

Medical therapy for the medical home model is supported by a managed care pharmacy model that identifies medication therapy issues, addresses them on a patient-specific basis with the primary physician, and follows up to ensure that applicable interventions were effectuated. The pharmacy model was conceived of, designed, implemented and monitored by a coordinated team composed of a Medical Director, Clinical Pharmacist consultant, and with strong support from the program administrator. The pharmacy model is anchored in a restricted formulary that contains formulary rules (e.g., substitution bias, prior authorization criteria, clinical guidelines, etc.), quantity limits, step therapy, and maximum dollar limits for every drug on the formulary. Patients are also directed to applicable pharmaceutical assistance programs (PAP) for necessary branded medications that cannot be substituted, although some manufacturers refuse coverage when the County pays for the first few doses to bridge to the PAP program.

On a monthly basis integrated data sets of medical encounter, pharmacy claims, enrollment, laboratory values, and other relevant data sets are screened for (but not limited to) compelling clinical issues, utilization outliers, and quality variance from national standards. The results of these patient-specific and issue-specific screens are communicated to physicians monthly. In summary, these screens include:

- Clinical screens which include patient-specific compliance and adherence (overall, by doctor, by therapeutic category, and by patient), risk management for liver and kidney toxic drug dosing, quantities greater than prescribed, high severity drug interactions and adverse drug effects, and other issues that are widely divergent or occurring in high severity patients
- Utilization outliers include coordination of care issues, polypharmacy and duplicate therapy
- Quality variance issues include variance from national standards of care for testing, prevention, monitoring and treatments

In addition to the above, alerts for manufacturing, FDA, and quality issues are sent immediately in order to allow for therapy changes commensurate with the concern.

All screens include notification counters and are tracked monthly by issue, patient, and doctor. Any doctors who have notifications of greater than three are contacted by mail or telephone by the Medical Director and the Pharmacy Consultant for an explanation of need or of physician awareness including current interventions already taken and not indicated in the encounter data, or a discussion of applicable interventions or alternative options. The screens are designed to cover all issues and usually include thousands of patient issues. The data is also mined for high value patients and issues that are reported as "call-outs". These call outs are smaller in number, usually thirty or less, and allow for the opportunity to focus priorities on fewer direct interventions by the Pharmacy Consultant and Medical Director.

In addition, all physicians treating high volumes of County MSI patients, those serving the medical homes, and intransigent physicians are called every few months to discuss patient-specific problems and oversight issues. As a result, all screens are evaluated for effectiveness, currency, and the need for implementing new screens.

On a weekly basis the Clinical Pharmacy Consultant and the Medical Director discuss clinical issues, provider concerns, prior authorization problems, formulary management issues, and other issues of immediate concern. These calls provide benefits beyond problem solving in that they also allow for open and candid discussions unfettered by personalities or professional egotism. In this environment all options can be aired and discussed with the objective of fairness and parity in clinical judgment.

What are the resource requirements?

The pharmacy model requires a clinical pharmacist, programmers, data analysts and support staff to analyze, interpret, distribute reports, arrange outreach calls to applicable physicians, etc. The Clinical Pharmacist manages the formulary, high severity or outlier issues addressed in prior authorization requests, physician telephone communications, oversight of screening and reporting, and communications with the Medical Review Committee.

What are the successes of the model, both anecdotal and measurable?

The pharmacy program has provided clinical, financial and educational successes. Every intervention is tracked on a patient, issue and physician basis. All results are reported by an aggregated sum, and on a cost per-member-per-month (PMPM) and cost per-patient-per-month (PPPM) basis. While the financial savings are proprietary, the pharmacy program has saved several million dollars in drug spend, provided a negative year-over-year trend on a PMPM and on a PPPM basis, negative utilization trend, as well as increasing generic utilization to the mid-eightieth percentile.

The pharmacy program has produced benefits that are consistent with the medical home concept; namely,

- Quality improvement on a patient-specific and population basis through physician use of the information to make changes in coordination of care, continuous improvement in compliance and adherence, decreases in high severity adverse drug reactions, decreases in liver and kidney toxic dosing issues, etc.
- Information technology and communication access are used liberally based on the results of patient-specific screens and trending of physician-specific performance
- The primary care physician that directs the medical home is the focus of clinical, utilization and quality communications and monitoring allowing for directed communications to be disseminated to the rest of the multidisciplinary team
- The whole person concept is fostered through formulary and clinical guideline consistency through ambulatory, subacute and acute care hospital/discharge coordination

What are the limitations of the model or restrictions that limit it transportability?

The model requires sufficient hardware and software support for screening pharmacy claims, medical encounter data, laboratory value data, enrollment files, and supporting files. Standard pharmacy-related software is insufficient for population-based screening such that programmatic coding is a necessity. Specialized programs were designed and coded to produce individual queries as well as artificial intelligence datasets to screen across integrated datasets.

Another limitation to all medication profiles is that they are limited to known information. Lack of coding for herbals and over-the-counter (OTC) medications is a limitation with unknown impact. Further, lack of information on PAP drugs, cash payment for so-called $4 generics, and medications purchased outside of the USA can compromise analyses, although their impact is hard to define and quantify.

Separate from the software issues, the availability, currency and access to necessary datasets is crucial. For the medical home, it is necessary to obtain bridge files, and updates, for patient-to-home and physician-to-home. Current data is critical to ensure that physicians have information that is actionable — this includes current laboratory values, referrals, and changes in physicians providing care to the medical home.

What is the business case for this model?

The managed care pharmacy model includes clinical, financial oversight, analyses, reporting, and quality oversight. Clinical benefits are measured by patient, physician and issue. As a result, the business case must be anchored in a cost trend PMPM and PPPM. Results over several years indicate a decrease in adverse issues per-patient year over year

for several years. Utilization has decreased approximately 30% and PMPM cost has decreased almost 40% for current year-to-date.

The managed care pharmacy model is based on a consulting fee for services rendered. The fee is fixed and has not varied for several years. Any project work is additional and based on a project fee or time-and-materials basis.

Are there any legal, or regulatory issues, or restrictions on the model?

The only applicable legal issue is HIPAA. The analyses and communications included in this model are covered under the administration component of HIPAA. All communications including patient-specific information must be protected and communicated only to administrative or treating providers. All summary reports must be sterilized for any patient-specific information.

What are the future plans and direction for this program?

In the short-term, the pharmacy program is directed to improving oversight and management of oncology monitoring and therapy. Physician communications will be expanded to a larger pool of high utilization physicians, particularly those responsible for all of the medical homes. We will also expand drug-laboratory interventions, especially for therapeutic drug levels for prior authorizations for seizure medications, and drug related hospital readmissions.

In the long-term the pharmacy program is challenged by specialty biopharmaceuticals, especially to treat various cancers. The program will have to target the appropriate use of the specialty agents from both cost and utilization vantage points as well as compliance with national guidelines. Also, drug dependency and addictive behavior is a primary problem for a subpopulation, such that consideration is being given to expanding the program to behavioral health patients and applicable therapies.

Further, care coordination remains a problem when one provider does not know what another provider is prescribing. This unfortunately also happens in the medical home in spite of efforts to improve communication. This is an emphasis for future requirements that patients cannot go outside of the medical home for services, including prescriptions.

About the Authors

Dan Castillo, MS, has 12 years of healthcare management experience in the medical group and health care safety net sectors. He has served as the Administrator for the County's Medical Services Initiative (MSI) Program since 2006 with an annual enrollment of ~50,000 members. He serves on several Orange County stakeholder committees related to health information technology and healthcare reform and has spoken nationally regarding innovative uses of technology to improve the quality and efficiency of healthcare delivery to the safety net population.

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Craig Stern, PharmD, MBA is president of ProPharma Pharmaceutical Consultants, Inc. and Chair of the CPhA Editorial Review Committee. Dr. Stern has no bias to disclose.