Pharmacy services across the continuum: Leveraging opportunities and organisational strategies to improve market competitiveness

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Abstract Medication utilisation is one of the ubiquitous modalities of medical interventions in our healthcare system and an area of high complexity and high cost for many patient populations. Assessment of the use of medications both in acute and ambulatory care settings has become increasingly important for hospitals and health systems as organisations become larger and more integrated and must manage the payer and external provider changes in the marketplace. The COVID-19 pandemic emphasised the critical nature of the drug supply chain for essential medications and the strategic imperative for health systems to have an enterprise-wide medication use strategy. This strategy must ensure evidence-based use of medications to improve patient safety, outcomes, effective cost management, as well as secure and expand revenue-generating patient care services to support the overall health and sustainability of the organisation.

Essential to accomplishing these goals is having a pharmacy executive as part of the health systems' enterprise strategic planning to ensure that patients' clinical needs, organisational revenue cycle, and new ventures are integrated across the continuum to optimise patient outcomes and patient retention.

KEYWORDS: pharmacy, leadership, hospitals, strategic planning, delivery of health care, medication therapy management

INTRODUCTION

The COVID-19 pandemic has severely tested the durability and unique role that hospitals and health systems play in our societies. Responding to the COVID-19 pandemic revealed the strengths of well-integrated health systems and the value that a well-established pharmacy service line provides. The past two years have presented new opportunities and a number of lessons learned for health systems as they evaluate their medication management and associated pharmacy services, including: (a) the need to continuously evaluate the impact of medication use evidence, innovation and drug development on patient outcomes, clinician satisfaction and cost implications, (b) the establishment of processes and infrastructure to facilitate equitable access to necessary medications, (c) the assessment of external competition to patient care services that is highly dependent on the ability to have access to and bill for the associated medications, (d) the evaluation of current sites of care and the strategic value to health systems maintaining the patient relationship, (e) the integration of medications and medication use processes into new care models (ie hospital at home) and (f) the expense of current and emerging medications requiring continuous evaluation to ensure patient access, to develop new business models and to maintain and grow sustainable service lines.[1]

DEFINING COMPREHENSIVE PHARMACY SERVICES AND OPPORTUNITIES

Health systems are gaining a full understanding of the impact of medication management services on expense management and revenue generation. As health systems continue to evolve to provide wide-ranging outpatient services in addition to more traditional inpatient hospital services, there remain untapped opportunities in the areas of evaluating drug expense, improving revenue integrity and developing new business models that can support the health system's mission and sustainability. Additionally, as COVID-19 catapulted new care models such as hospital at home and the use of virtual health, the importance of innovation, integration and leveraging health systems' infrastructure has grown increasingly complex.

Every patient encounter involving a medication should include a defined role for a pharmacist to ensure continuity of care and optimisation of clinical, economic and humanistic outcomes. This need transcends to health system leadership levels where organisations demonstrating high levels of innovation have a pharmacy executive that has the authority and accountability to provide and influence strategic direction for the health system. A properly positioned pharmacy executive ensures there is a global understanding of how medication management can benefit the organisation in both quality patient outcomes as well as

financial contribution while also meeting the associated compliance and regulatory requirements.[2] Although this paper does not address the compliance, accreditation and regulatory aspects of medication management, it must be emphasised these are critical factors for success as medication use is one of the most highly regulated and accredited modes of treatment used in healthcare. It should also be emphasised that the accreditation and regulatory compliance for the pharmacy-related services that will be described should have dedicated resources commensurate to the levels of revenue and risk management to ensure the ability to maintain services, access payer contracts and protect the organisation from general liabilities (Table 1).

The opportunities to optimise medication management to support the patient across the continuum of their care include acute, outpatient, emergent and urgent care, alternate sites of care (when compared with traditional services), transition of care from one area to another and home-based pharmacy services. Many health systems deliver elements of or all these services, and as mergers and acquisitions continue between hospitals and health systems, there is increased opportunity to grow, develop and better integrate these medication management services (Table 2). In addition, as new patient care models and payer models develop, there will be a more urgent need to leverage these services to

Table 1: Accreditation and regulatory examples associated with pharmacy services.

Accreditation and regulatory	Pharmacy service impacted
The Joint Commission (TJC) Det Norske Veritas, Inc. (DNV) Healthcare Facilities Accreditation Program (HFAP) Centers for Medicare and Medicaid Services (CMS) Conditions of Participation	All areas of pharmacy services
Drug Enforcement Agency (DEA)	All
United States Pharmacopeia (USP)	All — Particularly Infusion and Compounding Services
URAC Accreditation Commission for Health Care (ACHC) TJC Center for Pharmacy Practice Accreditation (CPPA)	Specialty Pharmacy
Occupational Safety and Health Administration (OSHA) National Institute for Occupational Safety and Health (NIOSH)	All
Health Resources and Services Administration (HRSA) Office of Pharmacy Affairs (OPA)	340B covered entities and medications
Boards of Pharmacy	All
Fiscal Intermediaries Recovery Audit Contractor (RAC)	Medicare fee for service claims
Drug Supply Chain Security Act (DSCSA)	All
Food and Drug Administration (FDA)	All, particularly Infusion and Compounding Services
Adverse events (FDA Medwatch) Drug Recalls	All
CMS Medicare Part D Stars Quality Ratings	Retail and Specialty Pharmacy
CMS Direct and Indirect Remuneration Program	Retail and Specialty Pharmacy

Table 2: Patient journey and health system pharmacy services.

Patient journey	Pharmacy systemisation optimisation	Pharmacy type (licence/regulatory specific)
Acute care	Centralised shared services	Inpatient pharmacy; distribution centre; wholesale; or as described by various bodies
Hospital at home	System medication formulary optimisation	Infusion centre/ambulatory infusion pharmacy/retail pharmacy
Hospital-based infusion	Prior authorisations	Inpatient pharmacy/specialty pharmacy
Emergency medicine	Telehealth	Home infusion pharmacy
Ambulatory infusion	Comprehensive medication management services	Specialty pharmacy/retail pharmacy
Physician clinic/primary care	Population health medication management	Long-term care pharmacy
Speciality pharmacy	Medication-related steward-ship programs	Mail order pharmacy
Home infusion/home care	Centralised shared services/ telehealth	Home infusion pharmacy
Skilled nursing facilities/ long-term care	Centralised shared services	Long-term care pharmacy

Table 3: Case scenarios for optimising health system pharmacy services.

Scenario one: Prescription medication bedside delivery (acute care to chronic care)

Action: Prior to patient discharge an evaluation of medications is conducted, and patient preferences for prescription fulfilment are determined along with necessary patient education and adherence risk assessment.
Benefit: Patient satisfaction and medication use compliance, prescription fulfilment by health system owned pharmacy, revenue generation, 340B savings and positive impact on readmissions risk.

Scenario two: Cancer care (infusion centre)

Action: Patient diagnosis and treatment plan developed requiring prior authorisation and determination of payer-approved infusion site of care. Health system analysis of payer contracts to ensure health system-owned locations are covered sites of care.
Benefit: Patient retention and satisfaction, revenue generation, 340B savings

Scenario three: Rheumatoid arthritis (speciality pharmacy)

Action: Patient diagnosis and treatment plan developed requiring prior authorisation and determination of payer-approved speciality pharmacy. Health system coordination to leverage strength of organisation to negotiate inclusion in payer network. Ensure health system-owned speciality pharmacy meets payer accreditation and network requirements.
Benefit: Patient retention and satisfaction, revenue generation, 340B savings

Scenario four: Hospital at home (Hospital Pharmacy — may intersect with home infusion and retail)

Action: Health system engagement in hospital at home models and full evaluation of medication management service requirements, including determination of hospital owned versus partnership opportunities.
Benefit: Cost control and leveraging of existing pharmacy services supporting other medication-based service lines (ie home infusion and retail pharmacy). Improved patient safety and efficiencies with full optimisation of health systems' electronic health record. Patient retention and satisfaction, revenue generation, 340B savings with patient discharge management.

Scenario five: Employee health prescription benefit

Action: Evaluation of health system's employee prescription benefits to make determination if utilising health system-owned community/retail pharmacies, speciality pharmacy and home infusion services will provide cost savings to the organisation and employee satisfaction.
Benefit: Potential significant savings for qualified 340B prescriptions, decreased overall costs for health system and revenue generation for health system-owned pharmacies

Table 3: (*Continued*)

Scenario six: Long-term antibiotic treatment (SNF/LTC and home infusion)
Action: Assessment of health systems discharges and if organisation owns skilled nursing facilities (SNF)/ long-term care (LTC) facilities where there are aggregated benefits for utilising a health system-owned home infusion. Assessment of patient discharges to external home infusion companies and potential revenue opportunities for the health system. Benefit: Decreased LOS, prescription fulfilment by health system-owned pharmacy, revenue generation, 340B savings and positive impact on readmissions risk.

Table 4: Steps to optimise pharmacy revenue cycle.[3]

Optimising the revenue cycle to promote growth of the pharmacy enterprise
• Systematic approach to revenue management • Prior authorisations, coverage determinations and review of payment denials • Charge Description Master maintenance and audit processes • Waste reduction and billing for waste • Data analytics capabilities to help identify opportunities for cost and revenue improvement

ensure the health system realises the full economic benefit of its investments. Leveraging the opportunities to provide fully integrated care as it pertains to medications and capture of the associated revenue will require the development of full organisation strategies such as managed care contracting, employee health insurance decision makers, service line leaders that are high medication modality users, and pharmacy leadership. These strategies may need new lines of communication and collaboration across departments or areas within organisations to be successful.

The following six scenarios (Table 3) demonstrate the opportunities in patient continuity of care and opportunities to fully integrate comprehensive medication management services to optimise outcomes and leverage health systems' strengths for patient retention and revenue.

FINANCIAL STABILISATION AND OPTIMISATION OF MEDICATION MANAGEMENT SERVICES

As organisations manage through the COVID-19 pandemic, it has become increasingly important to evaluate the rigour of revenue cycle management of medication-related services. With increasing payer requirements for prior authorisations and constantly changing network restrictions, health systems must evaluate revenue cycle resources and procedures related to medication utilisation and reimbursement. With the increasing opportunities for health systems to evaluate new or expanded pharmacy-related service lines, as described previously, it is important to ensure there is a comprehensive approach to revenue cycle management that accounts for strategic decisions in bundled payment contracting, calculated 'loss' to reach a larger strategic goal (ie reduction in length of stay (LOS) for uninsured patients) and patient retention. Medication-related revenue cycle management includes additional layers, such as navigating payer-mandated drug formularies, rules and regulations associated with wasted and medication 'overfill' and 340B compliance (Table 4).

A growing concern for health systems is the aggressive position payers are taking on influencing the covered sites of care for patient administration of medications. This also creates unique strategies and tactics for managing the revenue cycle that need to be integrated with an overall organisation revenue cycle plan and budgeting. For example, with specialty pharmacy there are payer access issues associated with routine prior authorisations, impact of direct and indirect remuneration fees

Table 5: Health system revenue cycle and pharmacy leadership engagement.[4]

- Evaluate trends in denials or restrictions due to alternative sites of care (ASOC)
- Review and assess about notices from payers regarding site of care restrictions to determine where hospital contracting or managed care teams can intervene.
- Review billing dashboards, charge review holds, unprocessed claims with departments, claim edits and denials.
- Ensure there is a comprehensive review and evaluation on denials regarding site of care restrictions (ie which payers, drugs, services are being restricted).
- Evaluate processes with revenue cycle management teams about the processes for write-offs related to infusion therapy and where opportunities exist to engage with payers and prescribers to minimise risks.
- Review patient referral patterns to external infusion centres (ie infusion suites, physicians' offices, home infusion providers) to determine if there are opportunities to leverage and/or utilise health system-owned pharmacy services.
- Ensure data analytics teams are in place and appropriately connected within the organisation to ensure easy access to data for the work teams that need the information.
- Consider creating specific teams to focus on medication revenue integrity issues.

on net revenues (Part D PBM fees negatively affect net revenues) and management of 340B compliance.

Health system executives should consider the following evaluative steps to ensure there is optimisation of patient care, retention and associated revenue and to determine where there are risk points for each. These areas of medication management are often overlooked owing to past business models that did not integrate pharmacy leadership and clinicians with health system billing and managed care leadership, have not fully shifted to account for the movement of patient care to outpatient and hospital-owned 'off-campus' sites of care, and may not have aggregated the full revenue being generated by medication management across all service lines (Table 5).

A significant opportunity for health systems exists in re-evaluation of all medication-related contracts – both the payer contracting side of the health systems and the supply chain side of health system relationships. Historically, contracting for medications has been viewed as a secondary aspect of payer contracting processes, but as the price of medications has increased and assumed a larger proportion of total revenue, the need to evaluate the medication aspects of contracts has grown exponentially. The commercial marketplace has aggressively eroded health systems' ability to 'buy and bill' for medications provided to patients, taken steps to erode medication-related margins and eliminated outright the health systems' ability to provide medication-related services to patients. Health systems have been slow to react with alternative approaches that are data and outcomes driven. This is also occurring on the medication supply chain where payers and manufacturers are changing supply channels to the detriment of health systems by circumventing traditional wholesaler and GPO contracts as well as negatively impacting 340B savings for those health systems that are covered entities. Health systems must engage in a total medication acquisition, utilisation and revenue cycle contract evaluation to leverage the size and scope of their organisational market share and purchase power.

REIMAGINING AND SCALING PHARMACY AND MEDICATION MANAGEMENT SERVICES

Prior to the COVID-19 pandemic many health systems were engaged in evaluating opportunities to drive value across the health system to optimise the value of mergers and acquisitions. This effort was also occurring for pharmacy and medication-related services.[5–7] With the significant and rapid shift to alternative sites of care (ASOC) and home-based care along with the

Table 6: Health system structural examples to achieve pharmacy high value outcomes.

Opportunity	Anticipated outcomes
• System-level drug formulary and clinical standardisation initiatives	• Streamlined order sets • Overall efficiency
• Electronic health record integration	• Efficiency through standardised work • Ease of patient information access
• Centralised shared services supply chain and clinical initiatives	• Minimise rework and maximise economies of scale of health system • Contract optimisation • Improved elasticity and flexibility in periods of high demand or crisis
• Remote medication management	• Improved services — particularly during 'off' hours • Workforce optimisation
• Speciality pharmacy and home infusion	• Simplicity for patients • Improved compliance and patient understanding • Improved patient satisfaction
• Telehealth	• Improved patient access and quality
• Comprehensive medication management	• Improved patient outcomes
• Population health	• Improved patient outcomes and retention • Decreased overall costs per patient
• Stewardship programmes (ABX and Opioid)	• Minimised adverse events and associated costs
• Hospital at home (pharmacy aspects)	• Extending hospital care capacity
• Alternate site of care medication management	• Improved patient experience
• Drug pipeline management (ie service line strategies)	• Optimised provider efficiency • Improved patient outcomes
• 340B	• Improved financial performance • Support for indigent care
• COVID-19 care	• Extending resources • Improved patient outcomes

benefits realised by those health systems that had well organised medication supply chain models, there has been a heightened interest and appreciation for further reimagining and scaling of pharmacy and medication management services across the ever-growing multi-hospital integrated health systems. Table 6 highlights the opportunities for structural opportunities to realise the full value of pharmacy services and clinical pharmacy's comprehensive medication management and to optimise the health systems' market position and size.[8–12]

HEALTH SYSTEM ADVOCACY AND EXTERNAL COMPETITION

Critical to the success of these opportunities for health systems to improve and grow pharmacy-related services is to evaluate and develop a comprehensive advocacy and external competition strategy. In the last five years, we have seen an increased awareness of the necessary health system level engagement in these areas. As medications, patient access and margins associated with health system pharmacy services have become more significant, it has become an imperative to have a health system level strategy to preserve patient care and business interests. In addition, adding to an already complex system, it must be acknowledged that medications are integral to the chronic disease management for patients. The disassociation between the providers accountable for the direct care of the patient and the pharmacy providing the medication introduces additional challenges

to adherence to and the provision of timely comprehensive care. This challenge provides the additional impetus for health systems to optimise and leverage their pharmacy and medication management-related services to provide a seamless patient experience. An example of this concern is demonstrated by the American Hospital Association (AHA) and the American Society of Health-System Pharmacists' (ASHP's) advocacy on white bagging of medications.[13,14] Rising concern for payer erosion of health systems' ability to care for its patients as well as the introduction of regulatory and patient safety issues are emphasised. Additionally, although not a new issue for health system executives, the vertical integration between payers and providers has grown to include pharmacy providers. These actions by payers have added new levels of competition and redirection of health system patients that need to be evaluated and strategies developed to optimise continuity of care and patient retention.

CONCLUSION

Pharmacy and medication management services have increasingly become a leveraging opportunity for health systems as they develop their organisational strategies to improve market competitiveness, optimise patient outcomes and retention across the continuum of care and identify opportunities for cost management and revenue growth. The complexity of these systems requires dedicated resources to ensure that the clinical, business, accreditation and regulatory requirements are achieved. Organisations must have a strategic and innovative pharmacy executive who plans and oversees the design and operation of the complex medication use processes throughout the system in collaboration with health system peers accountable for organisation growth and viability.

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