Quality Impact of Health System Specialty Pharmacy Service

Brian S. Smith and Eric Dickson
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8:00am
Dr. Dickson rejoined the faculty of the Department of Emergency Medicine in 2009 after serving in many capacities at the Carver College of Medicine and the University of Iowa Hospitals and Clinics including Founding Chair of the Department of Emergency Medicine.

He did his residency at the Emergency Medicine Residency Program of the University of Massachusetts Medical School and is a graduate of the University of Massachusetts Medical School. He received his Masters of Health Care Management from Harvard University.

He was appointed the CEO of UMass Memorial Health Care system, the clinical partner of the University of Massachusetts Medical School. His research interests include hormonal opioids and tissue protection.

Eric W. Dickson
MD, MHCM, FACEP
INTRODUCTION

Dr. Smith is currently the Director of Clinical Services, Quality and Compliance for Shields Health Solutions. In this role, Dr. Smith oversees the development of clinical protocols with physician practices, medication adherence programs, staff education, quality improvement, safety and compliance.

Dr. Smith graduated from Massachusetts College of Pharmacy and Health Sciences in 1997 with a Bachelor of Science in Pharmacy and 1999 with a Doctor of Pharmacy degree. In 2000, he completed an ASHP Accredited PGY1 Residency at UMass Memorial Medical Center. After residency training, Dr. Smith was hired as a Clinical Pharmacy Specialist, Trauma/Neurosurgery/Burn at UMass.

In 2012, Dr. Smith received the Massachusetts Society of Health-System Pharmacists Service Award. Dr. Smith is also an Assistant Professor of Surgery and Graduate Nursing at University of Massachusetts Medical School where he teaches in the Pharmacology and Advanced Therapeutics courses.

Brian S. Smith
PharmD
AGENDA

1. UMass Memorial Accountable Care Organization (ACO)
2. What is Specialty Pharmacy?
3. Trends in Specialty Pharmaceuticals
4. Impact of Medication Adherence
5. Lessons from Specialty Program
6. Care Management Platform 2.0
WHO WE ARE

UMass Memorial Health Care

4 Affiliated Hospitals
+ Heywood
+ Milford
+ Harrington
+ Day Kimball

4 Owned Hospitals on 8 Campuses
+ Clinton
+ HealthAlliance
+ Marlborough
+ UMass Memorial Medical Center
  • Hahnemann Campus
  • University Campus
  • Memorial Campus
  • City Campus

1100 Employed MDs

550 Residents / Fellows

45 Physicians at 3 Federally Qualified Health Centers

1600 Physicians in the UMMHC MCN

CHL Community Healthlink
MRI Facilities
  + 9 Magnets
  + 1 PET/CT
Outreach Laboratories
UMass Memorial ACO, Inc.
LIFE Flight
Ronald McDonald Van
Fairlawn Rehabilitation Hospital & Outpatient Center
FOCUS ON POPULATION HEALTH

2014
- Dual eligible pilots
- Shared savings with commercial plans
- Build HCC coding and quality infrastructure

2015-2018
- Became a Medicare ACO
- Align w/ HMO
- Employer-embedded primary/urgent care

2020+
- Fully integrated delivery system
UNDERSTANDING YOUR PATIENT POPULATION

The sickest 5% of the population spends 50 times as much per person as the healthy majority.
Medication non-adherence adds an estimated $290 billion of unnecessary cost to the US health care system.

“This really is an innovative approach, but I’m afraid we can’t consider it. It’s never been done before.”
Specialty pharmacy focuses on HIGH COST, HIGH TOUCH medication therapy for patients with complex disease states.”
**WHAT DEFINES “SPECIALTY PHARMACY”?**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Answered</th>
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<tbody>
<tr>
<td>85%</td>
<td>High cost</td>
<td>Answered</td>
</tr>
<tr>
<td>81%</td>
<td>Treats complex disease requiring special monitoring</td>
<td>Answered</td>
</tr>
<tr>
<td>74%</td>
<td>Treats orphan, uncommon, or rare disease</td>
<td>Answered</td>
</tr>
<tr>
<td>73%</td>
<td>Requires special handling, storage, and distribution</td>
<td>Answered</td>
</tr>
<tr>
<td>67%</td>
<td>Limited distribution from manufacturer</td>
<td>Answered</td>
</tr>
<tr>
<td>66%</td>
<td>Indicated for disease already classified as specialty</td>
<td>Answered</td>
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</tbody>
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U.S. Pharma Market

$135.1B
SPECIALTY

$230.3B
NON-SPECIALTY

Specialty Market Breakdown (2014)

- Oncology (including oral solids) $41.2
- Rheumatoid Arthritis/Crohn’s $20.6
- HIV/AIDS (including oral solids) $13.8
- Multiple Sclerosis $13.8
- Renal $6.1
- IVIG/Hemophilia $5.6
- Hepatitis $9.7
- Macular Degeneration $3.5
- Anti-Coagulant $1.9
- Growth Hormone $1.7
- Transplant $1.6
- Pulmonary Arterial Hypertension $2.4
- Other $13.1
- **Total ($ billion)** $135.1

SPECIALTY PHARMACY IS RAPIDLY GROWING

$87.1 billion in 2012
$192.2 billion in 2016E
$401.7 billion in 2020E
Traditional Pharmacy

Patient leaves hospital, fills script at local pharmacy

UMass Specialty Pharmacy (UMSP)

- Dedicated pharmacist/pharm-tech
- Complete drug interaction check in EMR
- Prior authorization completed by UMSP
- Co-pay assistance advocate if needed
- Delivery in the clinic or to home
- Patient Support Center
- Feedback to care team from UMSP staff

Script filled through UMSP care team

Information flows back to clinicians
## STRATEGIC POSITIONING – UMASS SPECIALTY PHARMACY

<table>
<thead>
<tr>
<th>Service</th>
<th>Retail</th>
<th>Hospital</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff embedded in clinic</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Shared EMR</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Data Analytics</td>
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<tr>
<td>Hospital Ownership</td>
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<td></td>
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<tr>
<td>Prior Authorization</td>
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<tr>
<td>Billing</td>
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<tr>
<td>Mail Order</td>
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<td></td>
<td></td>
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<tr>
<td>Patient Support Center</td>
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<td></td>
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<tr>
<td>Adherence Monitoring</td>
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THE VALUE OF BRINGING ON STRATEGIC PARTNERS

Integration with the Clinic

Clinic Facing Services

UMass Specialty Pharmacy

Patient Facing Services

Back Office Support
ASSESSING OUTCOMES

Patient Experience
Patient satisfaction surveys monthly

Physician Experience
Clinician satisfaction surveys annually

Adherence Metrics
Proportion days covered (PDC) reported quarterly
COMPARISON TO OTHER SPECIALTY PHARMACIES

Overall Experience with UMSP

- Good/Excellent: 97%
- Fair: 3%
- Poor: 0%

Comparison to Other Pharmacies

- Better: 86%
- Same: 14%
- Worse: 0%
# MEDICATION ADHERENCE AND PATIENT OUTCOMES

<table>
<thead>
<tr>
<th>Disease State</th>
<th>Outcomes Associated with High Medication Adherence</th>
</tr>
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<tbody>
<tr>
<td><strong>HIV</strong></td>
<td>Viral suppression, high CD4 count, less resistance(^1-^3)</td>
</tr>
<tr>
<td><strong>Solid Organ Transplant</strong></td>
<td>Less rejection, improved graft survival(^4,^5)</td>
</tr>
<tr>
<td><strong>Chronic Myeloid Leukemia</strong></td>
<td>Complete molecular response to therapy(^6)</td>
</tr>
<tr>
<td><strong>Hepatitis C</strong></td>
<td>Sustained virologic response(^7)</td>
</tr>
</tbody>
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MEDICATION ADHERENCE: 2015 OUTCOMES

PDC by Specialty

<table>
<thead>
<tr>
<th>Specialty</th>
<th>PDC</th>
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<tbody>
<tr>
<td>Oncology</td>
<td>87%</td>
</tr>
<tr>
<td>Transplant</td>
<td>98%</td>
</tr>
<tr>
<td>RA</td>
<td>93%</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>93%</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>97%</td>
</tr>
<tr>
<td>Multiple Sclerosis</td>
<td>94%</td>
</tr>
<tr>
<td>GI</td>
<td>92%</td>
</tr>
<tr>
<td>Neurology</td>
<td>97%</td>
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</tbody>
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Note: Jan-Dec 2015, Average Adjusted PDC.
GROWTH

Excellent patient and clinician satisfaction + High rates of medication adherence = Sustained and continued growth
MEDICATION ADHERENCE: NEXT STEPS

- Predictive Analytics
- Patient Dashboards
- Expanding Use of Mobile App
- Care Navigators
CARE MANAGEMENT 2.0

Low Risk
PDC > 0.8
- Remote management, monthly refill reminders, mobile app

Moderate Risk
PDC 0.4 to 0.8
- Intensive liaison support, pharmacist therapy management

High Risk
PDC < 0.4
- Home nurse/pharmacist visits, increased frequency of interaction and support
Providing support to patients and caregivers at home is critical

Daily Guidance

Objective Tracking

Social Support
TAKEAWAYS

Specialty pharmacy is growing fast

New models of treating patients outside the hospital exist

Specialty provides a great foundation for building an ACO