Improving Medication Use with Predictive Analytics and Targeted Clinical Programs: Translating Practical Research into a Successful Business

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Topics

1. My story
2. The problem(s) that bother me
3. The research behind RxAnte
4. How we turned the research into a meaningful business
5. Closing thoughts
My Story

Pharmacist

Public health (pharmacoepi + decision analysis) researcher

ValueMedics

Policy guy

RxAnte
Ineffective medication use is burdening the healthcare system

The true cost of medications…

...exceeds the direct cost of some of the most prevalent medical concerns in the United States.

As the “true cost of medications” has become better understood, it has begun to drive policy.

$300B opportunity

Real-world examples

Overuse

$70B+
Annual cost of prescription opioid abuse

Underuse

$100B+
Annual direct cost of nonadherence to diabetes, hypertension and dyslipidemia medicines

Misuse

700K+
Annual ER visits due to adverse reactions to prescribed drugs

Sources: American Journal of Managed Care; New England Journal of Medicine; National Center for Biotechnology Information.
Real improvement requires overcoming two barriers to progress:

1. Most interventions are delivered after people stop their meds.
2. The best way to solve non-adherence is to prevent it.
3. The most effective interventions are costly and difficult to scale.

Incentives to improve medication use are driving new interactions among payers, providers, and patients.
About RxAnte

**OUR MISSION**
Improve drug therapy outcomes with advanced analytics and targeted clinical programs

**OUR TEAM**
Founded by leaders in health services research, quality improvement, and advanced predictive/causal analytics

**OUR CLIENTS**
8M+ lives under management across national and regional health plans, PBMs, health systems, and pharmaceutical manufacturers

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RxAnte has three common use cases

**QUALITY IMPROVEMENT**
- CMS Stars
- HEDIS
- Custom Measures

**MEDICAL COST SAVINGS**
- Reduce total cost of care by improving medication use

**VALUE OF MEDICINES**
- Measure drug performance and enable value-based purchasing

**ANALYTICS PLATFORM**
- Which members?
- What to do?
- When?
- What were the outcomes?
- What did it cost?
- What was the ROI?
- What will it take to achieve my goals?
RxAnte’s solutions are proven to improve medication use and outcomes by focusing on 4 key elements:

**TARGETING**
Identify members most likely to benefit – prioritize by risk, receptivity, and urgency

**TIMING**
Deploy interventions before non-adherence or bad outcomes occur

**SCALE**
Right-size intervention strategy to maximize benefit and control cost

**EFFECTIVENESS**
Measure and manage intervention performance constantly to drive outcomes
Our solutions all begin with patient-level data and proprietary analytics.
Predictive analytics can identify patients at risk of suboptimal medication outcomes

The **RxAnte Adherence Score™** indicates the likelihood of future adherence at a patient and therapy area level.

The **Value of Future Adherence Score™** reports avoidable medical costs attributable to medication non-adherence.

The **Risk of Unsafe Use Score™** identifies patients at risk of unsafe use of prescription opioids.

RxAnte’s **Value of Intervention™** approach targets patients based on predicted risk, urgency, and receptivity to intervention.
RxEffect™ is the online outreach solution to improve medication outcomes

RxEffect Outreach Solution

Plan-sponsored QI program fueled by daily data and proprietary analytics and decision support

Targeted to the patients who need it most, and the doctors, pharmacies, and care coordinators accountable for them

Real-time monitoring of each patient’s refill behavior, and constantly optimized workflow

Configurable solution can address a wide range of measures related to prescribing, medication safety, or medication adherence

https://www.rxante.com/1490/video-rxeffect/
Then we manage performance on an ongoing basis

Program Management and Strategy

Client Services team advises and supports clients as strategic partners

- **Process Fidelity**: Continuous monitoring of intervention *effectiveness*: deployment rates, reach rates, clinical session rates
- **Performance Forecasting**: Understand weekly members who are adherent, non-adherent, and still in play to positively impact Star Ratings.
- **Program Evaluation**: Bi-annual evaluation of overall and intervention-level performance to inform ongoing program deployment strategy

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We’ve been fortunate to be part of a public health program that has meaningful impact.

Adherence to Chronic Medications among Medicare members (2010-2016)

- Antidiabetics MAPD
- Renin Angiotensin System Antagonists MAPD
- Statins MAPD
- Antidiabetics PDP
- Renin Angiotensin System Antagonists PDP
- Statins PDP

% of Members Adherent

- 65%
- 70%
- 75%
- 80%
- 85%

Closing thoughts

- The under-use, over-use, and mis-use of prescription drugs is a preventable $300B problem.

- All stakeholders are paying increasing attention to this issue, in the form of new quality measures and performance incentives.

- Population health outcomes are a shared responsibility among payers, health professionals, pharmacy, and patients.

- Researchers with expertise, passion, and creativity in this area are needed: in government, in academia, and in business.