Point-of-Care Testing: A Partnership Between Pharmacy and Public Health

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Disclosures
• Cameron Gordon declares no conflicts of interest, real or apparent, and no financial interests in any company, product, or service mentioned in this program, including grants, employment, gifts, stock holdings, and honoraria.

Learning Objectives
1. Describe the partnership between Salt Lake City area pharmacies and the Salt Lake County Health Department to offer point-of-care influenza testing and treatment
2. Identify aligned priorities that are addressed by collaboration between community pharmacy and public health, and explore the sustainability and future expansion of point-of-care testing (POCT) as a community pharmacy standard of practice

The benefit(s) of offering point-of-care flu testing at community pharmacies with a collaborative practice agreement (CPA) to dispense antivirals is/are:
A) Increased convenience and access to care
B) Lower overall costs
C) Decreased burden on healthcare system
D) All of the above

Introduction
Smith’s Food & Drug Stores
• A division of The Kroger Company
• Largest traditional grocery-pharmacy chain in U.S.
• Division office in Salt Lake City, Utah
• 135 pharmacies across 7 states (UT, NV, NM, AZ, ID, MT, WY)
• Strong commitment to direct patient care and innovative clinical services
### Background

#### Healthcare Barriers

- **Accessibility**
  - Shortage of primary care providers
  - Decrease in family medicine practitioners
  - Aging population and healthcare reform
  - Average wait time 3 wks for appointment with general practitioner
- **Cost**
  - Average physician office visit - $89
  - Urgent care clinic - $245, Emergency Room - $406
  - In 2014, 5.3% of Americans failed to obtain care due to cost


### Bridging the Gap

#### Clinical Services

- **Health coaching**
- **Health screenings**
  - Lipid panels, BG, A1c, BP, BMI
- **MTM services**
- **Variety of immunizations**
- **Next...novel CLIA-waived tests**
  - NACDS national tour: POCT certificate program
  - Influenza
  - Group A Streptococcus

### Aligned Priorities

#### Pharmacy

- Bridge the healthcare gap
- Provide innovative direct patient care and education
- Expand clinical services
  - Residency: new service
  - Research
- Increase collaboration with other providers

#### Public Health

- Promote and protect community health
- Prevention through innovation and education
- Communicate and collaborate with the community
- Infectious disease surveillance

### Pilot Program

#### Influenza Testing

Despite flu vaccine preventing over 40,000 deaths in 9 years...

- Up to 49,000 deaths annually in U.S.
- Approximately 111 million workdays lost each year
- $87 billion total annual economic burden
- 20,000 children ≤ 5 years old are hospitalized each year
- Diagnosis & treatment within 48 hours is crucial
- 92% of Americans live within 1.6 miles of a pharmacy

Most go the pharmacy first anyway (OTC remedies)

Center for Disease Control and Prevention (CDC):
[http://www.cdc.gov/flu/about/disease/burden.htm](http://www.cdc.gov/flu/about/disease/burden.htm)

### Partnership: Unique Strengths

#### Pharmacy

- **Accessibility**
  - Pharmacists among most trusted healthcare professionals
  - No appointment needed
- **Convenience**
  - 14 pilot sites in Salt Lake County (8 Smith’s, 6 Associated Food Stores)
- **Cost**
  - $40 per flu test vs. $89 (Dr. visit) to $406 (ER visit)
- **Knowledge, expertise, and existing clinical infrastructure**
  - Health screenings, disease state coaching, immunizations

#### Salt Lake County Health Department

- Community outreach and marketing
- Epidemiology team
- Collaborative Practice Agreement (CPA)
  - Signed by Medical Director: Dr. Dagmar Vitek, MD
- Setting the bar for community physicians to collaborate

Quidel Sofia® Analyzer

- Surveillance
  - Virena® seamless uploading of de-identified patient data

Pilot Protocol Development

Who Was At the Table

- Smith’s Pharmacy
- Associated Food Stores (AFS)
- Salt Lake County Health Department
  - Medical Director – Dr. Dagmar Vitek, MD
  - Public health team
  - Epidemiology team – infectious disease surveillance
  - Legal team

Pilot Testing Protocol

Patient Assessment

- Patient information/demographics
- History of present illness
  - Assessment of Influenza-Like-Illness (ILI)
  - Onset of symptoms
- Medical history
  - Risk assessment
- Immunization history
- Primary care provider information

Pilot Program – Testing Protocol

Physical Assessment

- Temperature
- Heart Rate
- Respiratory Rate
- Blood Pressure
- Blood O₂ Saturation
- Weight
  - Tamiflu dosing in children ≤ 12 years old
- Automatic referral criteria – critical value thresholds of each

Positive Test Result

- Dispense antiviral therapy according to CPA
  - Oseltamivir (Tamiflu) 75mg BID x 5 days
  - Zanamivir (Relenza) 10mg inhaled BID x 5 days (if ≥ 7 years old)
- Recommend OTC therapy
- Review and administer immunizations if needed
- Send encounter summary to PCP if needed

Negative Test Result

- Counsel on possibility of false negatives
  - Low risk with current technology
- High-risk patients: contact PCP to request antiviral therapy
  - Due to potential for false negative
  - “High-risk” = age ≥ 65 or < 2 y.o., pregnant, immunosuppressed, morbidly obese, chronic lung, heart, renal, metabolic, hematologic, or neurologic disease
- Recommend OTC therapy
- Review and administer immunizations if needed
- Follow up with patient in 24 hours and refer to PCP if needed

Additional Considerations

- Exclusions (apart from automatic referral criteria)
  - Children age < 5 years old
  - ILI symptoms for > 48 hours
  - Antiviral treatment or prophylaxis within past 2 weeks
  - Hypersensitivity or contraindication to oseltamivir or zanamivir
- Household contacts (of a flu-positive patient) with ILI must be screened but do not require testing for antiviral therapy
- Pharmacies to maintain CLIA waiver and encounter records
- Pharmacists must be POCT trained and CPR/BLS certified
**Benefit and Value**

**An Unparalleled Learning Experience**
- Experience and expertise gained
  - Joint development of testing and treatment protocol
  - Design and implementation of CPA
- Increased pharmacist clinical training
- Local media and public relations exposure
- Promotion of collaborative practice in community
- Information/data sharing (local research and Nebraska study)
- New revenue stream potential
  - Business/financial planning and new service approval

**What We Can Expect**

**Community Pharmacy New Standard of Care**
- Similarities to pharmacist-delivered immunizations
- Other point-of-care tests
  - Next up: Group A Streptococcus (GAS)
- Increased collaboration with local providers
- Improved antimicrobial stewardship
- Decreased costs and increased access to healthcare

**Key Points**

- Clinical role of community pharmacists is evolving
- Expanded role of community pharmacists and innovative direct patient care services, such as POCT, will lead to the realization of healthcare priorities and goals
- Pharmacy and Public Health shared priorities
  - Increase access to healthcare services
  - Decrease costs and burden on system

**Collaboration is key**

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