Saint Luke’s University Health Network Case Study - Clinical Pathways Initiative

Background
Clinical pathways are multidisciplinary plans of best clinical practices for specified groups of patients with a particular diagnosis that aid the coordination and delivery of high quality care. They are both a tool and a concept, which embed guidelines, protocols, and locally agreed, evidence-based, patient-centered, best practice, into everyday use for the individual patient.

The Client
St. Luke’s Physicians Group is a network of physician practices affiliated with St. Luke’s University Health Network (SLUHN). The network includes primary care, OB/GYN and specialty practices and offices. SLUHN is a non-profit, regional, fully integrated, nationally recognized network providing services at ten hospitals and more than 315 sites in Lehigh, Northampton, Carbon, Schuylkill, Bucks, Montgomery, Berks and Monroe counties in Pennsylvania and Warren and Hunterdon counties in New Jersey. They have an unwavering commitment to excellence as they care for the sick and injured, educate physicians, nurses and other health care providers; and improve access to care in the communities they serve.

The Challenge
An increasing number of patients were being sent for evaluation and treatment to specialty services without having the recommended diagnostic testing performed. Often times recommendations for standards of care protocol testing had not been followed, resulting in delays of care, treatment, under/over utilization of testing and frustration to both patient and practitioner. In an effort to improve the patient experience, the Clinical Council for the health system identified 16 prevalent disease processes that had a high utilization for referred specialty care, providers and services. Clinical Pathways, an evidence-based standard of care concept, was adopted as the educational reference to support the health systems’ initiative to streamline the order processes, and to reduce unnecessary and redundant testing to improve the patient experience.

The Approach
The recommendations contained in the Clinical Pathways were designed to shift as the patient’s condition improved, stabilized or declined. The pathways contained a variety of orderables ranging from maintenance exams, laboratory, radiology, medication management, educational support, as
well as referrals. A gap analysis revealed opportunities to streamline the order entry process decreasing the instances of practitioners entering data in more than one place to satisfy metrics. The existing Value-Based orders were incorporated into the Pathways. The Clinical Pathways were leveraged with a two-pronged approach; access within the note and as an order tool driven by assessed diagnosis code. The Pathways were written in a step by step format and viewable within the note. This allowed the providers to have the ability to review the Pathways without leaving the workspace, resulting in increased efficiency and click reduction. The Pathways were then crafted as Order Tools, with a similar step by step format, and incorporated within the order space of the electronic medical record.

Specialty-specific Physician Champions were engaged for each Pathway to support and provide clinical input. This collaborative dialog not only aided in the creation of meaningful tools, but also served in the long-term end user adoption by taking into account provider’s practice patterns. In addition, the Physician Champions provided final configuration approval prior to the Pathways being promoted to production as well as being liaisons to other user/providers if questions arose regarding the evidence-based standards of care guidelines.

**Rollout/Implementation**

To keep the project momentum, hosting weekly status meetings with essential initiative supporters was key as an

---

Clinical Pathway Example – Indications for Pulmonary Outpatient Screening

- **Indications for Office Spirometry**
  - 45 years or older with the following:
    - Tobacco abuse history
    - Environmental exposures
    - Symptoms of COPD/asthma
    - Current COPD diagnosis W/OUT documented spirometry results
    - Clarification of TRUE pulmonary diagnosis
  - Spirometry FEV1/FVC ratio < .70
  - Office spirometry results not indicative of clinical presentation
  - Office spirometry unable to be performed

- **Annual Lung Cancer Screening with Low Dose CT scan**
  - 55-80 years of age AND
  - 30 pack year tobacco history (current or within past 15 years)
  - No limited life expectancy

- **Office spirometry performed by designated champion**
- **Results reviewed by the provider and discussed with the patient**
  - Spirometry FEV1/FVC ratio < .70, unable to perform spirometry or results not indicative of clinical presentation.
  - Complete PFT
  - Complete PFT w/ABG

- **ConSIDER**
  -FULL Pulmonary Function Testing*
  - Alpha 1 anti-trypsin deficiency testing
  - Pulmonary Referral*

- **Orders**
  - Patients 45 yrs or older w/ hx tobacco abuse/environmental exposures - symptoms of COPD/Asthma - current dx of COPD w/o spirometry results - clarification of TRUE.
  - Spirometry w/ Broncho-POC
  - Spirometry w/o Broncho-POC

- **Follow-ups and Referrals**
  - Patients w/ FEV1 50-80% (moderate) or more severe stage COPD, symptomatic despite current therapies, 2 or more exacerbations in 1 yr, +Alpha 1 Deficiency
  - Pulmonary Medicine Referral Other
avenue to communicate Pathway build progress and solicit feedback for aesthetic changes. As the Pathway configurations were completed, individualized tutorial documents were designed for each to serve as educational and instructional resources. Taking into account users have different learning styles, audio-visual aids were developed as additional means for reviewing, using and obtaining the information contained in the Pathways. The tutorials were housed on a common share drive within the health system and accessible to all users. Clinical Pathways were released into production big bang style after the successful pilot launch. The EHR weekly newsletter was utilized as an additional notification source and included web links to the tutorial documentation.

**Conclusion/Results**

The desire had been identified within the health system to incorporate Clinical Pathways, evidence-based standards of care guidelines, into the provider’s already hectic work day. When the initial analysis revealed that many of the Value-Based care orders and workflows that were currently being practiced were in line with the standard of care recommendations contained within the Clinical Pathways, it became evident that the best and most practical course of action would be to integrate the two as much as possible. The Pathways were meticulously designed to meet the standards outlined by Clinical Council and when feasible Value-Based care initiatives were incorporated. The complexities of the multiple Value-Based programs in which the health system participates was an unexpected and welcome bonus. Incorporating the measures aided in reducing data entry for providers allowing more time for patient face-to-face interaction and assisting the health system’s desire to easily make available the newly adopted Clinical Pathways.