Developing HIT Tools & Infrastructure To Implement Genomic Medicine in CT

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January 23, 2020

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Genomic Medicine In The News
Case Study

• Kathy Mathes got a genetic test indicating an 84% risk for ovarian cancer by age 70
• Kathy underwent preventative surgery as a result of the high risk
• Her risk changed to a variant of uncertain significance 4 years later
• Surgery was not a necessity

Lessons Learned

• Lack of integration at point of care
  – Genomic results are not effectively sent and stored in EHRs
  – Ordering Genomic tests not standardized

• Various labs report data differently
  – Commercial, Hospital system, research
  – Different levels – whole genome, variants
  – Formats – PDF, XML, metadata
  – Standards – HL7, FHIR, JSON

• Low level of understanding and interpretation at point of care
  – Clinical meaning of the results changes
  – Limited Clinical Decision Support
  – No standardized way to present information in EHRs
Potential HIE Use Genomic Medicine in CT

Leveraging Connecticut’s Health Information to Support Genomic Medicine Workshop on March 8, 2019

- Key Issues/Use Cases Addressed:
  - Clinical Decision Support Data Standardization
  - Genomics Knowledge Base
  - Clinical Decision Support Engine
  - Prior Authorization
  - Post-testing Resources
  - Pre-Testing Resources
Prior Authorization Use Case Example

Prior Authorization Tool

• Information from the EHR, the tool determines risk for Genomic Condition based on guidelines and screening tests

• Queries the HIE for additional information

• Sends prior authorization request to the patient’s insurance company

• Orders Genomic Test
## Genomic Medicine and HIT
### Lessons from Medication Reconciliation

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<th>Medication Reconciliation</th>
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Med Rec Polypharmacy Workgroup

• Formed legislatively in 2018
  – Under HITO / HIT Advisory Council
  – Multi-Stakeholder group with over 50 participants
• Met Sept 2018 to June 2019
  – With Facilitation / Support from the HITECH HIE funding
  – UConn Health help a “Med Wreck Hackathon” Spring 2019
• Produced a report to Legislature June 2019
  – 11 Core Recommendations
• Now Med Rec Polypharmacy Committee (MRPC) (Sept 2019- 2021)
  – Under HIT Advisory Council – with formal charter and support from HITECH funds
  – Working on Policy, Funding, Education & Outreach, Pilot projects, Prototype development
Consider Genomic Medicine HIT Workgroup

• Model on the Med Rec Process
  – Multi-stakeholder
  – Assigned to HIT Advisory Council for support / reporting
  – Ask for reports / recommendations back to legislature
  – Explore in more depth how HIE can support Genomic Medicine
  – Consider Sponsoring Grants, Competitions, Hackathons to illicit best ideas and foster collaborations amongst stakeholders
  – Explore how to build / fund underlying HIT / HIE infrastructure required for sustained success