HealthCatalyst®

Closed-Loop Analytics Supports Data-Driven Medical Management

ACUITAS HEALTH™

HEALTHCARE ORGANIZATION

Value-Based Care Organization

PRODUCTS

- Health Catalyst® Data Operating System (DOS™) Platform
- Closed-Loop Analytics

SERVICES

- Professional Services

EXECUTIVE SUMMARY

Acuitas Health improved access to data for its partner clinicians by using its data platform and closed-loop analytics to integrate data from more than ten disparate systems. Clinicians receive patient-specific details before the patient visit, allowing them to identify opportunities for health maintenance, improve quality, support data-driven medical decision making, increase adoption of best practices, and improve hierarchical condition category (HCC) coding. Results include:

- In just five months, there have been more than 24,000 patients that have received pre-visit planning using the solution with 200 patient-level data points updated daily (new information for patients with a scheduled appointment).

- Nearly a 70 percent reduction in the time required by the staff to complete pre-visit planning in the first week.

ACCESSIBLE DATA DRIVES BETTER MEDICAL DECISION MAKING

Acuitas Health is a population health services organization that supports multiple provider practices to deliver high-value healthcare while preserving the independent practice of medicine.

Clinicians can treat their patients better when they have more information. However, huge-scale data dumps without an approach to meaningful synthesized information make patient care more difficult and inefficient.

Physicians, nurses, and other members of the care team often lack the data they need to understand their performance and improve care outcomes, even though they frequently spend substantial time and resources on data-related administrative tasks.[1,2] It is estimated that $15.4 billion is spent each year just to report healthcare quality measures.[2]

> "The purpose of this solution was to save time and harmonize chaos for clinicians by leveraging automation. We want to reduce burnout, free up more time for patient care, and improve patient outcomes.
>
> Keegan Bailey, MS
> Strategy and Technology Leader

Pre-visit planning is a process for making the necessary information available to the clinician and shifting administrative tasks out of a patient's appointment time. The process allows clinicians to focus on the patient while increasing efficiency and decreasing costs.[3]

A BARRIER TO IMPROVEMENT: INEFFICIENT ACCESS TO DATA IN DISPARATE SYSTEMS

Clinicians supported by Acuitas Health were committed to ensuring patients received the best possible care, including providing patients primary and preventive care and needed medical care in the right setting, at the right cost. Despite this commitment, clinicians struggled to identify opportunities to improve health maintenance and quality and use data to drive their medical decision making.

Critical information needed by clinicians for the most effective decision making resided in disparate systems. To have all the data they wanted and needed, clinicians would have to access each system, often documenting information on paper before the patient visit, which was frustrating, time-consuming, and costly.

Acuitas Health needed a solution for its partner clinicians that would make the best use of their time, ensuring they had access to critical data, while decreasing the administrative burden and reducing costs.

CLOSED-LOOP ANALYTICS DELIVERS DATA AT THE POINT OF CARE

The solution for Acuitas Health and the clinicians it serves was to leverage the Health Catalyst® Data Operating System (DOS™) platform and interoperability, including closed-loop technologies, to integrate data from more than ten disparate systems. The integration provides patient-specific details and synthesized insights to clinicians at the point of care in the most efficient way, before the patient visit.

Acuitas Health used the data platform to develop a pre-visit planning "EMR alert" to give clinicians access to clinical insights. The pre-visit planning form includes information from EMRs, the practice management system, health information exchange alerts, and claims data, enabling clinicians to identify opportunities for health maintenance, as well as to improve quality and data-driven medical decision making (see Figure 1).

> "The Pre-Visit Planning Solution reduced staff time by approximately 70 percent in first week for our practice! It allows me to order labs, referral, follow-up appointments, and patient instructions before I even go into the room. While in the room with the patient, I am able to spend more time talking with the patient, rather than sifting through their chart.
>
> Cary Vachon, DO

Figure 1: Pre-visit planning form reference tool (EMR alert)

The pre-visit planning form includes high-level information about the patient, including appointments, allergies, and insurance provider. The document also includes more detailed patient information, including the following:

- Care management status.

- Coding specificity opportunities; known and unknown.

- Quality insights.

- Mortality risk assessment using the Charlson-Deyo (calculated using demographic and clinical factors from the patient's EMR).

- The last immunization date (pneumococcal, pneumovax, shingles round one and two).

- The five most recent emergency room or inpatient events in the past 12 months (including the admit and discharge reason, chief complaint/primary diagnosis, type [emergency or inpatient], and the facility).

- The most recent lab value and the result date for the following:

  - Glomerular filtration rate.

  - Creatinine.

  - Hemoglobin A1c.

  - Cholesterol and low-density lipoproteins.

  - Thyroid-stimulating hormone.

  - Prostate-specific antigen.

  - MICRAL test.

  - Hemoglobin.

  - Electrocardiogram.

- The ten most recent specialist visits from the previous 12 months.

- Open referral and imaging orders.

The pre-visit planning form also includes opportunities to improve HCC coding and electronic clinical quality measure insights. The form identifies each clinically relevant quality measure domain for which the patient is eligible, denoting the required task for each measure domain.

The data platform aggregates the necessary data, generates the patient-specific pre-visit planning form, and then uses closed-loop analytics to place a copy of the document in the patient's EMR, updating it daily until the patient's visit occurs. Consolidated, value-based information is now synthesized and available in a single location at the point of care with little access barriers, supporting improved pre-visit planning.

RESULTS

The pre-visit planning EMR alert has given clinicians access to clinical insights at the point of care for the first time, enabling users to achieve the following:

- Identify opportunities for health maintenance.
- Improve quality.
- Support data-driven medical decision making.
- Increase adoption of best practices.
- Improve HCC coding.
- Improve clinician satisfaction.
- Achieve operational efficiencies.

In just five months, there have been more than 24,000 patients that have received pre-visit planning, with 200 patient-level data points updated daily (new information for patients with a scheduled appointment).

- The pre-visit planning EMR alert reduced the time required of staff to complete pre-visit planning by nearly 70 percent in the first week of use.
- The popularity of the original adult alert, resulted in demand for a pediatric alert, which is now available for all patients.
- Most practice sites are at or near 100 percent usage of the alert for patients seen.

WHAT'S NEXT

Acuitas Health plans to continue to expand its use of the data platform and technology to support its growing practice of delivering high-quality healthcare.

REFERENCES

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3. American Medical Association. (2015). *10 steps to pre-visit planning that can produce big savings.* Retrieved from https://www.ama-assn.org/practice-management/sustainability/10-steps-pre-visit-planning-can-produce-big-savings

ABOUT HEALTH CATALYST

Health Catalyst is a leading provider of data and analytics technology and services to healthcare organizations, committed to being the catalyst for massive, measurable, data-informed healthcare improvement. Our customers leverage our cloud-based data platform—powered by data from more than 100 million patient records, and encompassing trillions of facts—as well as our analytics software and professional services expertise to make data-informed decisions and realize measurable clinical, financial, and operational improvements. We envision a future in which all healthcare decisions are data informed. Learn more at www.healthcatalyst.com.

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