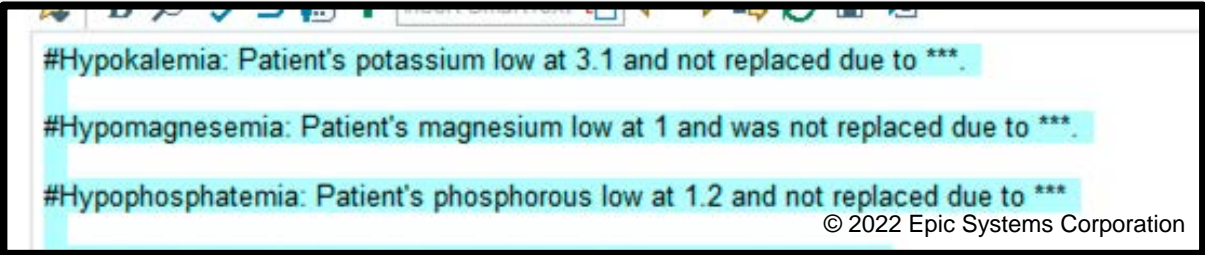# AutoDX: Hospitalist Pilot to Further Reduce Coding Queries

Sean Bernstein, MD, Matthew Cerasale, MD MPH SFHM, Ben Petro, RHIA, Cheng-Kai Kao, MD FACP SFHM
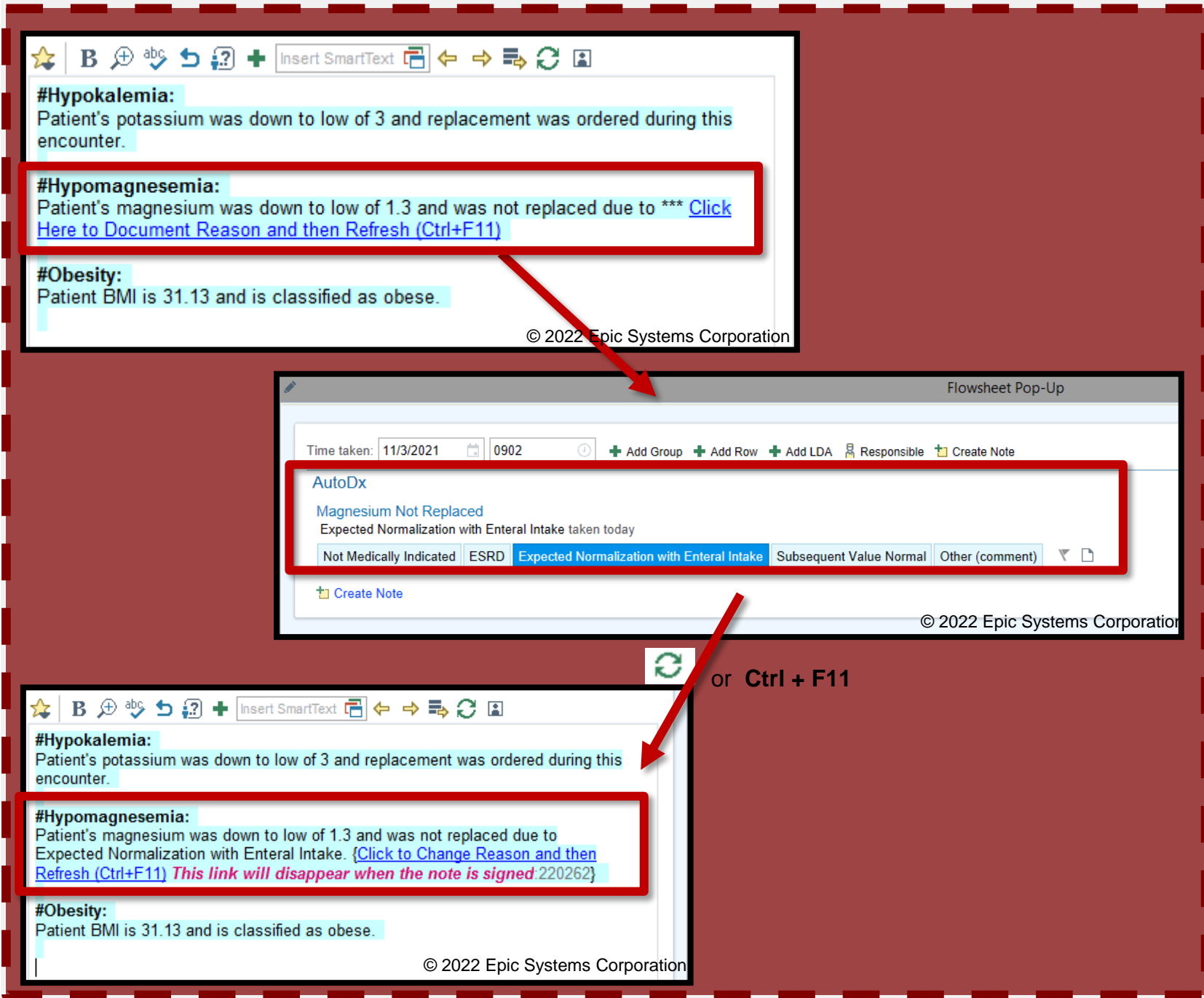
Problem

- Inpatient notes and the hospital problem list did not accurately capture the full clinical complexity of the patient population resulting in frequent queries and reduced reimbursement

- Previous iterations of AutoDx did significantly improved a pilot service's Case Mix Index but the 'deviations' required providers to 'break' the tool for the rest of the hospitalization

#Hypokalemia: Patient's potassium low at 3.1 and not replaced due to ***.

#Hypomagnesemia: Patient's magnesium low at 1 and was not replaced due to ***.

#Hypophosphatemia: Patient's phosphorous low at 1.2 and not replaced due to ***

© 2022 Epic Systems Corporation

Goals

- To further reduce CDI queries by initially documenting accurate patient complexity

- To allow providers to document 'deviations' from Epic logic and permit AutoDx to continue to suggest diagnoses throughout the hospitalization

- To start a framework to efficiently scale the AutoDx tool to other diagnoses and services
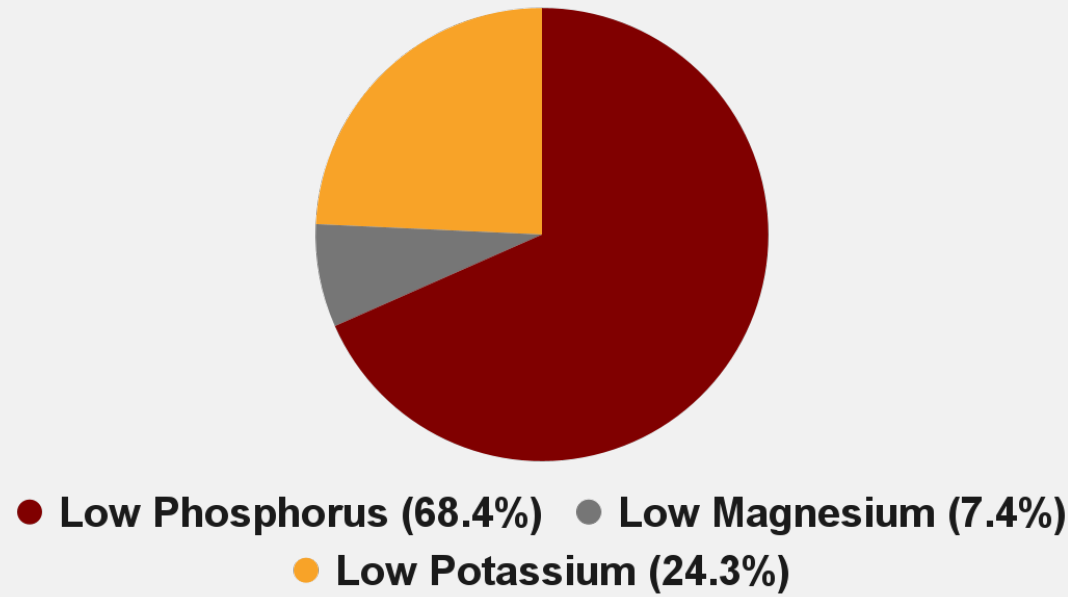
Intervention Design

- Redesigned the AutoDx tool for inpatient notes to allow for interactivity

- When 'deviations' from expected actions happened (i.e. electrolyte not replaced for a medical indication), providers interact with a popup with selections that are incorporated into the note once refreshed

- Subsequent notes by any author automatically incorporated the selection

- AutoDX tool was piloted with a small group initially but expanded as an official pilot to all hospital medicine note templates

- Build was done via the Physician Builder program and committee at UCM

Impact

Pilot Period Usage

- Low Phosphorus (68.4%) ● Low Magnesium (7.4%)
- Low Potassium (24.3%)

Chart 1: Total = 136 unique electrolyte deviations documented

- Pilot period was November 2021 to March 2022

- 88 queries for the hospitalist service during period related to **Electrolyte Disturbances**
  - 32 for **Electrolyte Disturbances** not included in to the tool (i.e. elevated levels of potassium, phosphorus and magnesium and any disturbance in calcium, sodium or acid/base status)
  - 45 did not have a current version of the tool in appropriate encounter notes (e.g. deleted initially, used a custom template, or tool never added to that template)

- No significant change in number of queries comparing pilot months to period prior to pilot

Lessons Learned

- Adding AutoDx to the Discharge Summary template would help to further reduce queries

- Providers often create their own copies of our note templates to add their own personalization to their documentation (e.g. signatures, exams, etc.)
  - Copied templates often had older versions of the tool in it

- Tool was subjectively well received by pilot users, and it was easy and intuitive to use

Next Steps

- Clinical Informatics has been expanding tool to new note templates and services

- Clinical Informatics has been working with Epic Corporate on a tool to update custom templates with the current version of the tool that would continue updating with the latest diagnoses

- Continue to pilot with new diagnostic tools (e.g. Anemia, Kidney Injury, and Atrial Fibrillation)

Acknowledgements