Case Study A question of patient safety

Overview

The head of medical services in a private urban hospital, who was also responsible for patient safety, noticed that the ICU department was accepting more admissions than expected. In particular, patients undergoing a type of routine surgery were receiving ICU care.

Challenges

Despite the hospital collecting all required data electronically, the challenges were:



Costs

The cost was estimated to be approximately \$250k to answer the question



Time

It would require two full time employees over 9 months in non-clinical time

Approach

Data Transformation

Using our platform, Piano, electronic health data was extracted and mapped to the required fields (anonymised patient demographics, ADT, procedures, medications).

Analytic Workflows

Using our analytics toolbox research workflows were created to:

- Automatically include patients according to inclusion/exclusion criteria.
- Segment the included patient population into cohorts of patients that have undergone the particular surgery and compare them with two control arms: patients undergoing any surgery and all included patients.
- Compares the cohorts' use of ICU analysed by day of the week, month of the year, and medication.

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Reporting

An automatic report was generated that described the research workflow and detailed the findings.

Results



Significant time saving

2 days to answer the question, as opposed to 9 months



Significant cost savings

The hospital quickly rectified the issue, resulting in improved quality and safety and significant cost saving of approximately \$1M



Evidentli has uniquely powerful technology that enables data transformation with a speed and at a quality I have not yet seen anywhere else.

Dr. Graham Grieve Inventor of FHIR

evidentli



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