

Identifying clinically relevant patient cohorts

Scott Morrison (Director of Data Science)

Wendy Moore (Director of Analytics)

Diaceutics

Better Testing, Better Treatment



Precision Medicine experts

Industry experience from working on every Precision Medicine brought to market with a company mantra to delight and not just deliver



Unrivaled data

Deep analytics derived from multiple pipelines of real-world data enabled by DXRX – The Diagnostic Network®



A global network

Implementation network of industry leading service providers currently in 53 countries



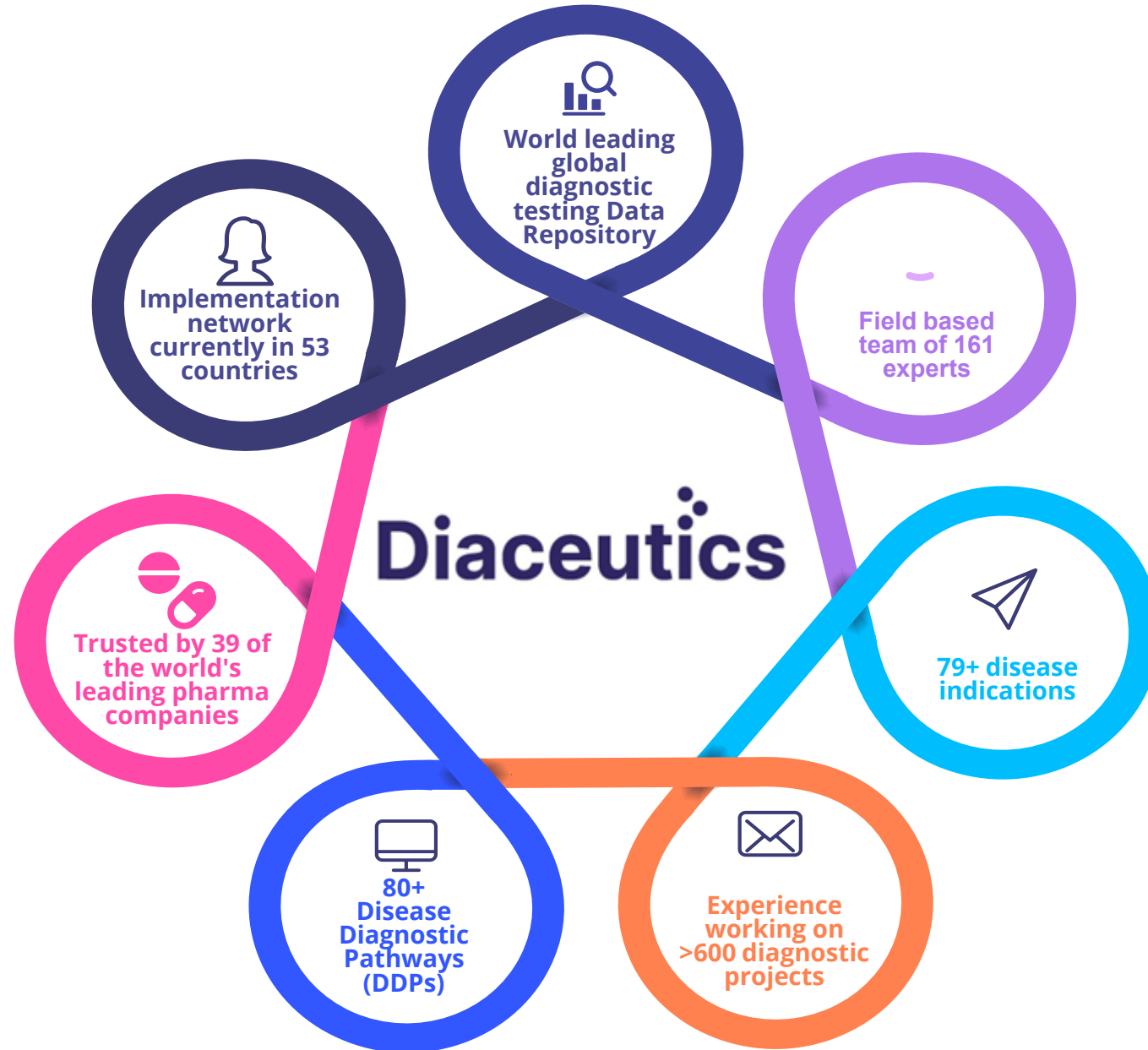
A solution provider

Uniquely positioned to solve commercialization challenges and drive solutions to unlock superior value from your Precision Medicine strategy

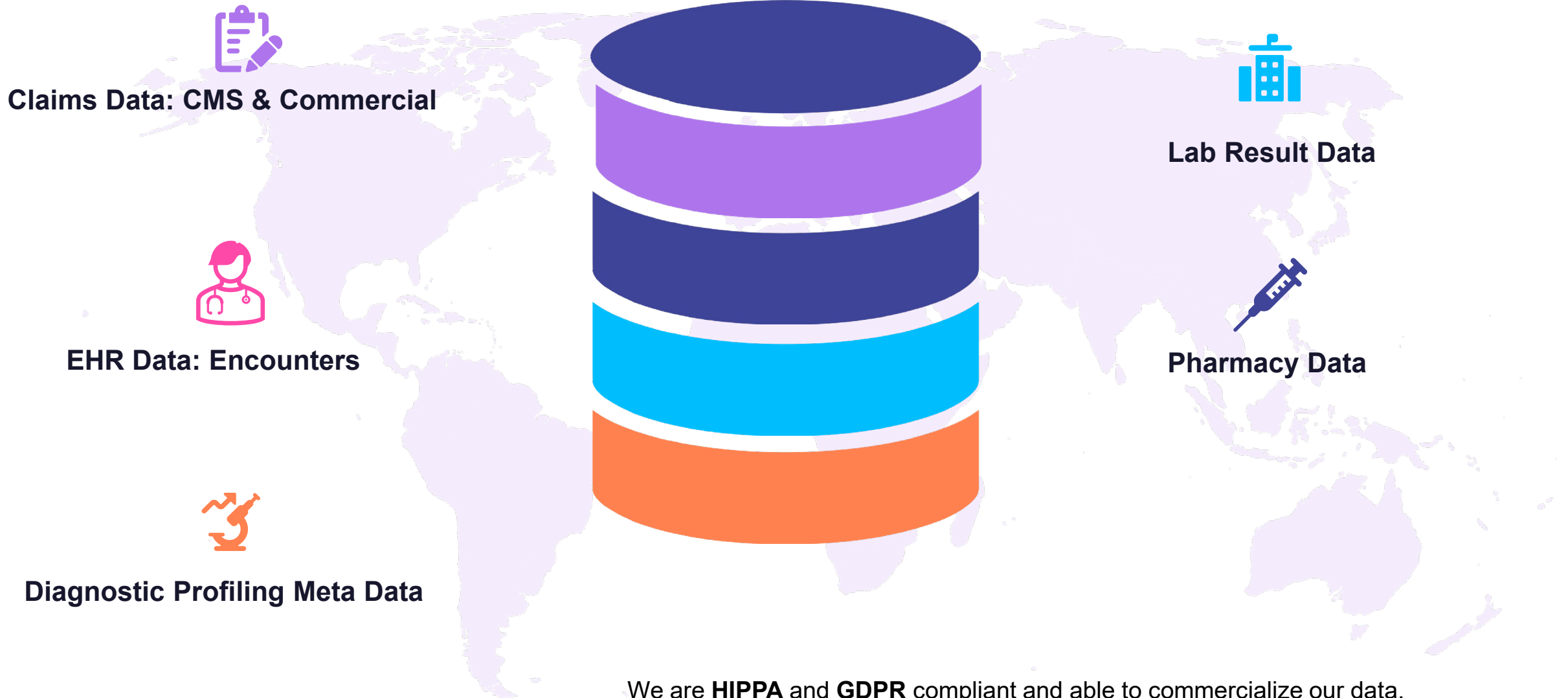
About us

At Diaceutics we believe that every patient should have access to the right treatment at the right time and are committed to solving commercialization challenges.

Diaceutics provides an end-to-end solution for the launch of Precision Medicine

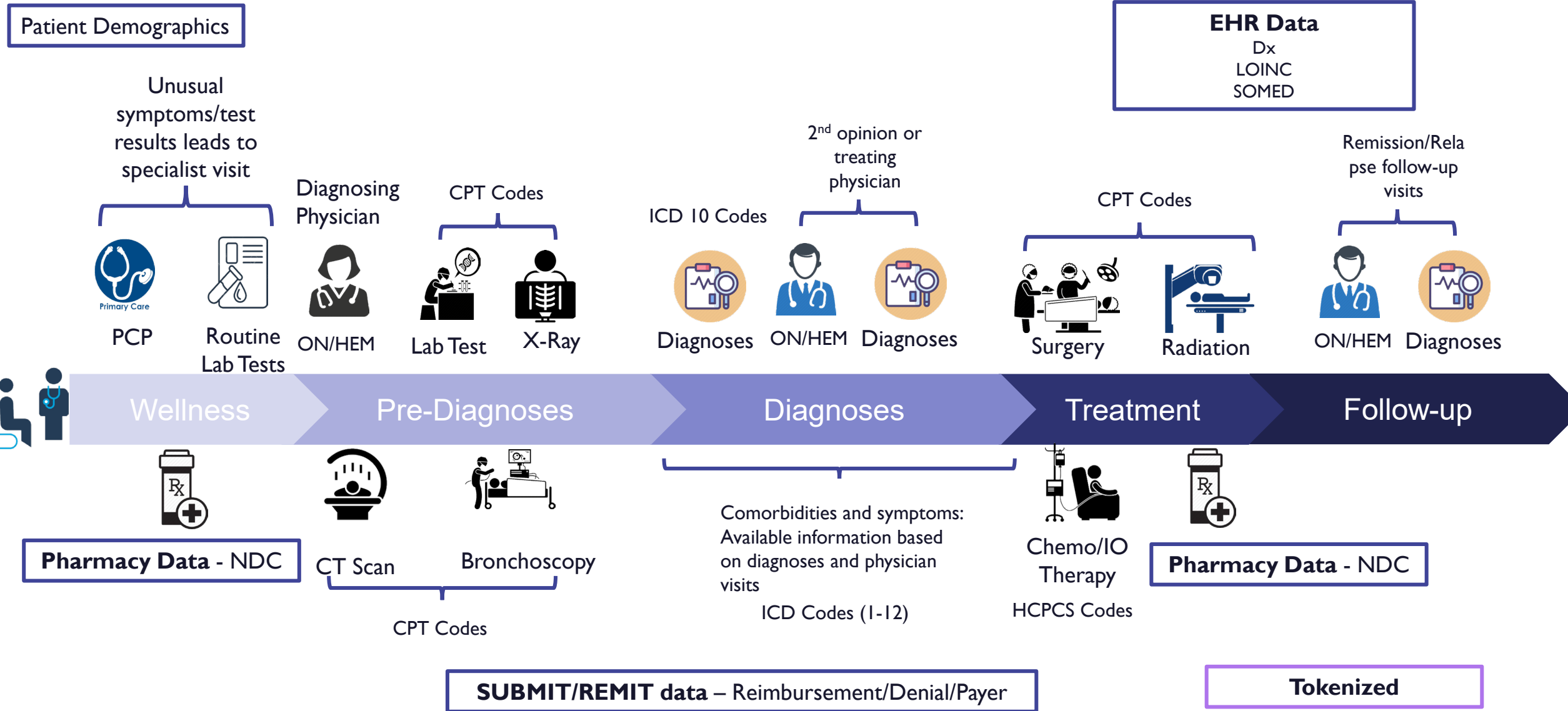


Diaceutics Data Lake

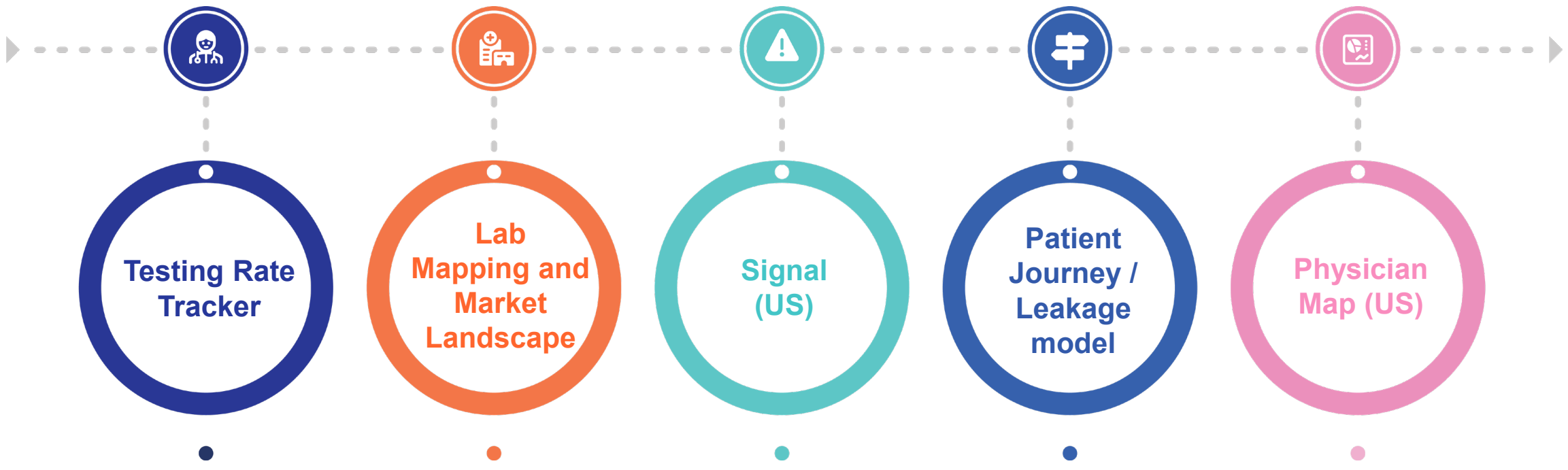


We are **HIPPA** and **GDPR** compliant and able to commercialize our data.

What can we see in our data?



Some of our Data products



Clinically relevant rules:

How we get additional value out of our data

Why do we need labelling

Why?

- Healthcare data **transactional** in natural, raw form provides little insight by itself – all coded
- ICD10 billing codes: top level only
- **Labels** identify specific **patient cohorts**
- Allows creation of **filters** for:
 - **Internal**, project specific, business analysts
 - **External** DXRX platform for clients
- **Speeds up** the process of raw data to insight
- Provides **reusable, validated** labelled data

Country *
United States x

Disease *
Non-small cell lung cancer x

Biomarker Method

Biomarker/Analog *
EGFR x

Date from *
2019

January

Date to *
2019

December

Start

DXRX
The Diagnostic Network*

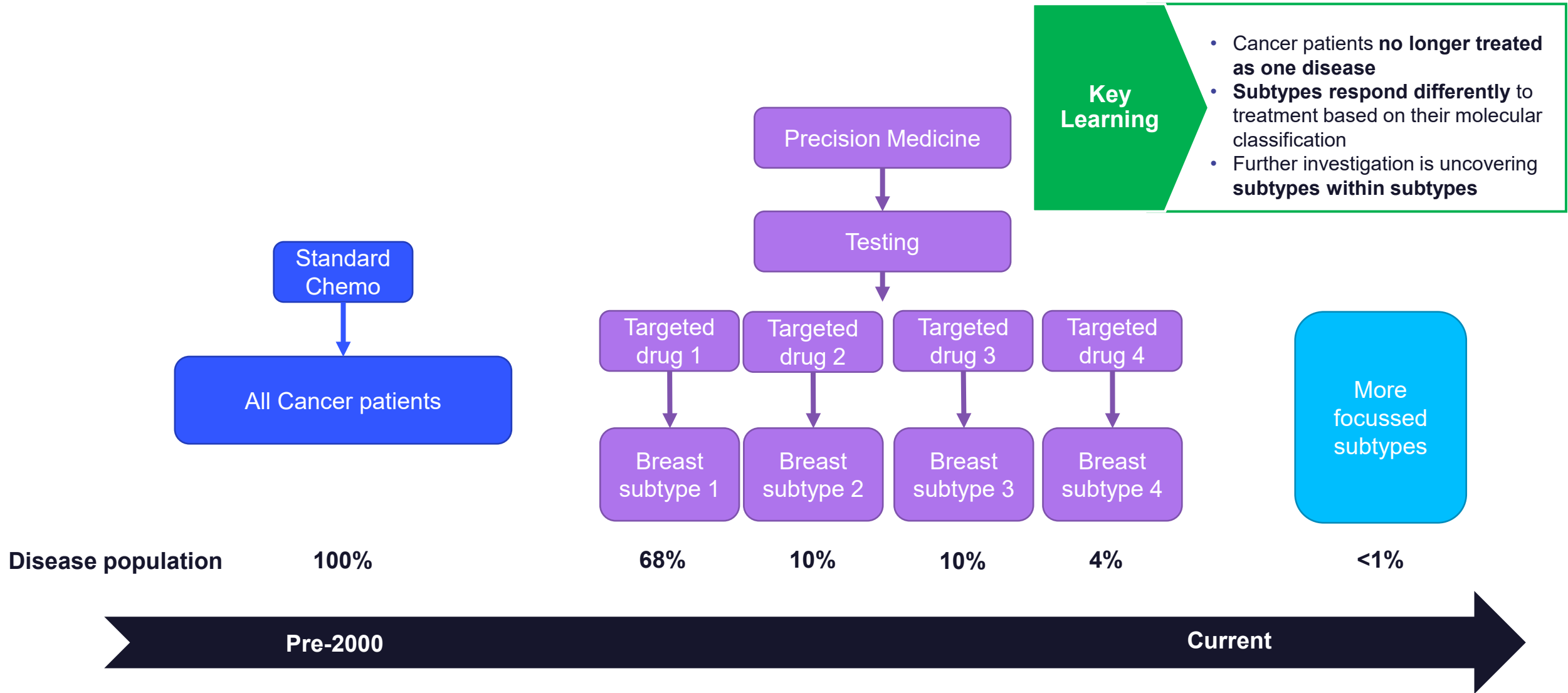
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DXRX classification example

Key Learning

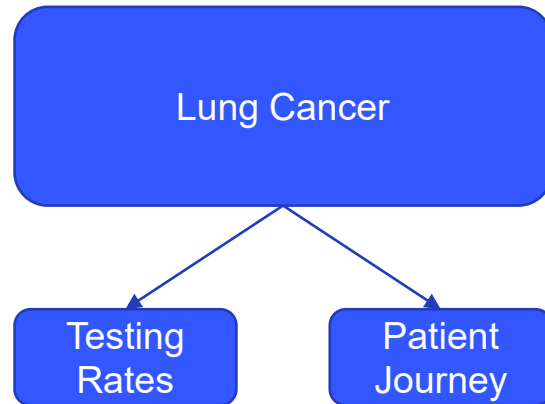
- Rules allow us to identify **specific patient cohorts** in our data e.g. 2L therapy
- Therefore we can draw **enhanced insights** from our data
- Rules **differentiate us** from our competitors

Importance of labelling

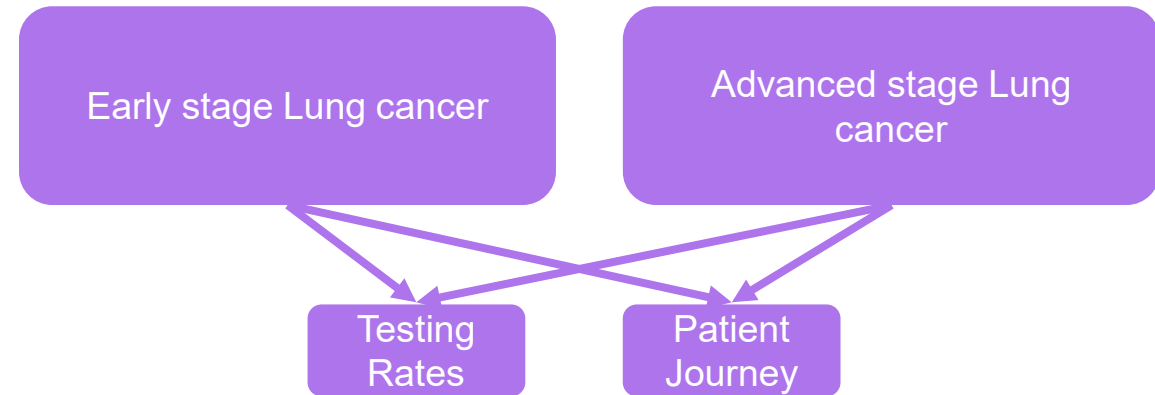


Importance of labelling

Healthcare data



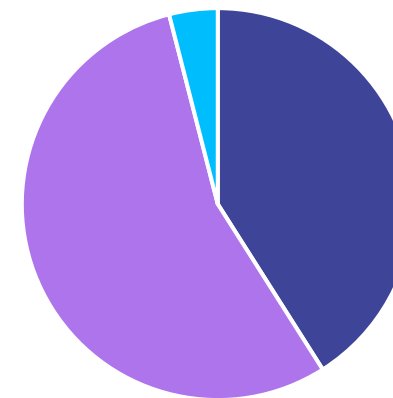
Addition of Labels



Key Learning

- **Without labels** we can only investigate lung cancer as a whole
- **With labels** we can get to the lung cancer stage specifically
- Testing and treatment journeys will be different between the stages
- **Our clients request specific stages**

Lung Cancer by stage

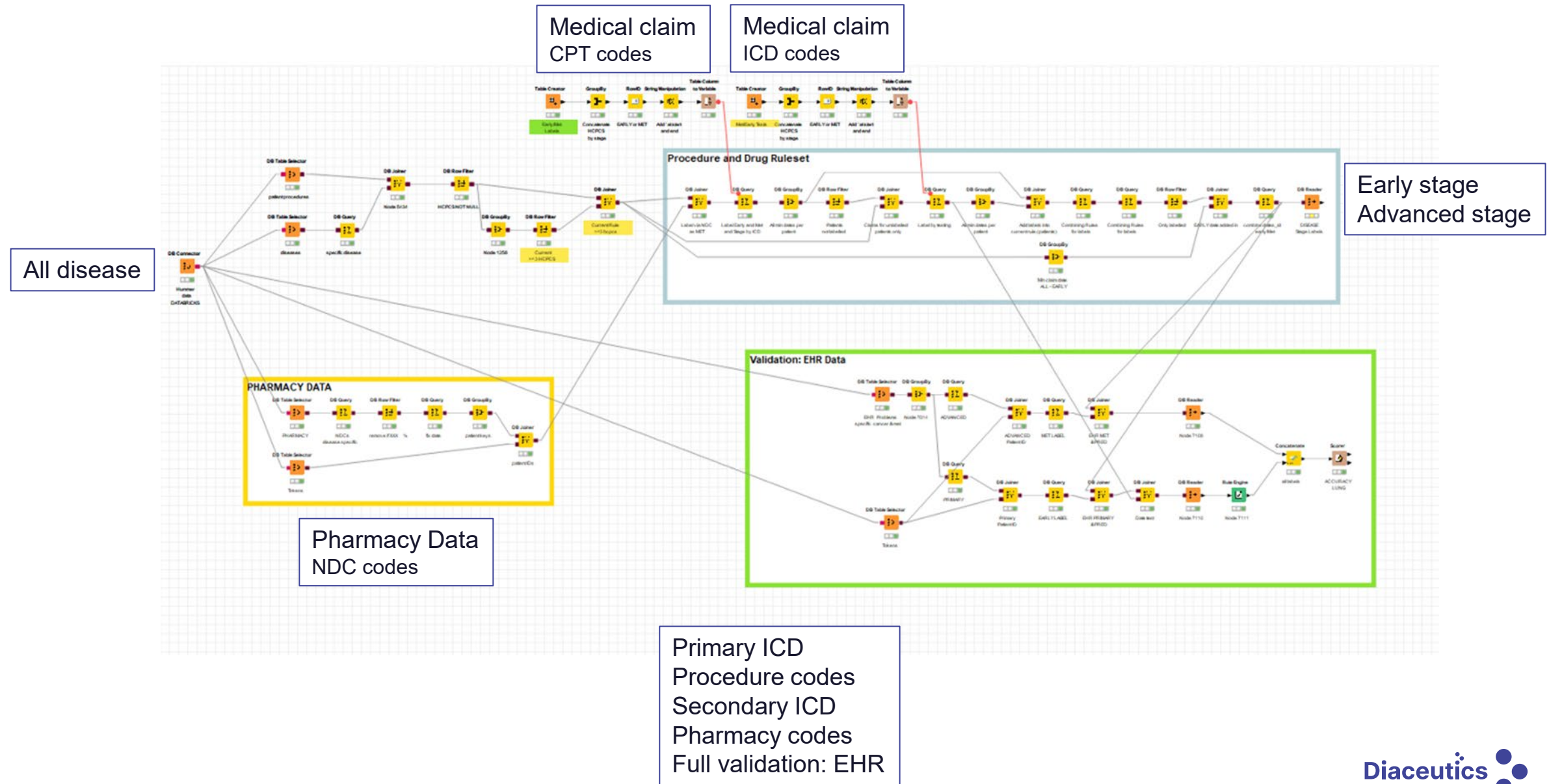


■ Early ■ Advanced ■ Unknown

Case Study:

Identification of Advanced NSCLC patient cohort

Enhanced data labelling: Stage of disease



All disease

Medical claim
CPT codes

Medical claim
ICD codes

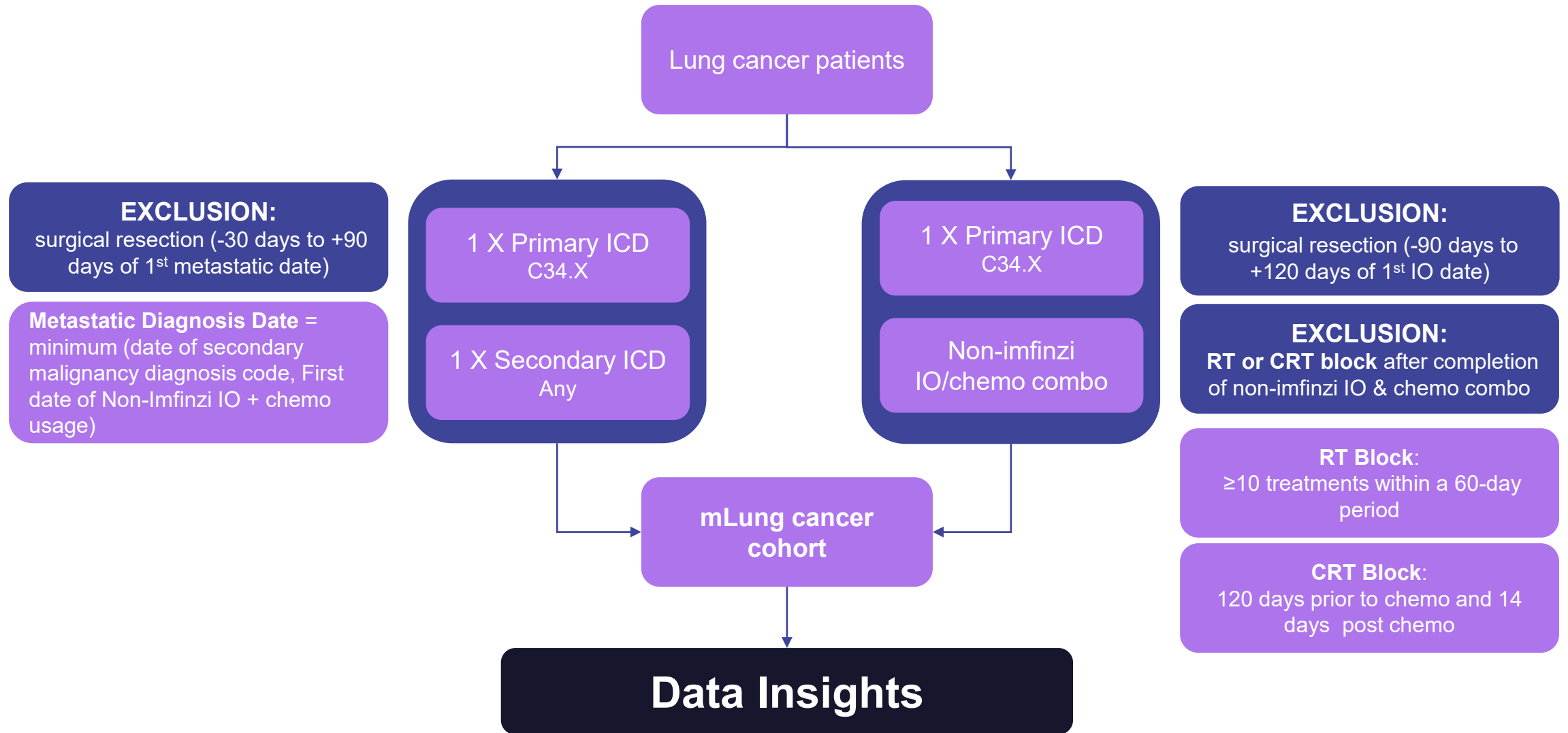
Early stage
Advanced stage

PHARMACY DATA

Pharmacy Data
NDC codes

Primary ICD
Procedure codes
Secondary ICD
Pharmacy codes
Full validation: EHR

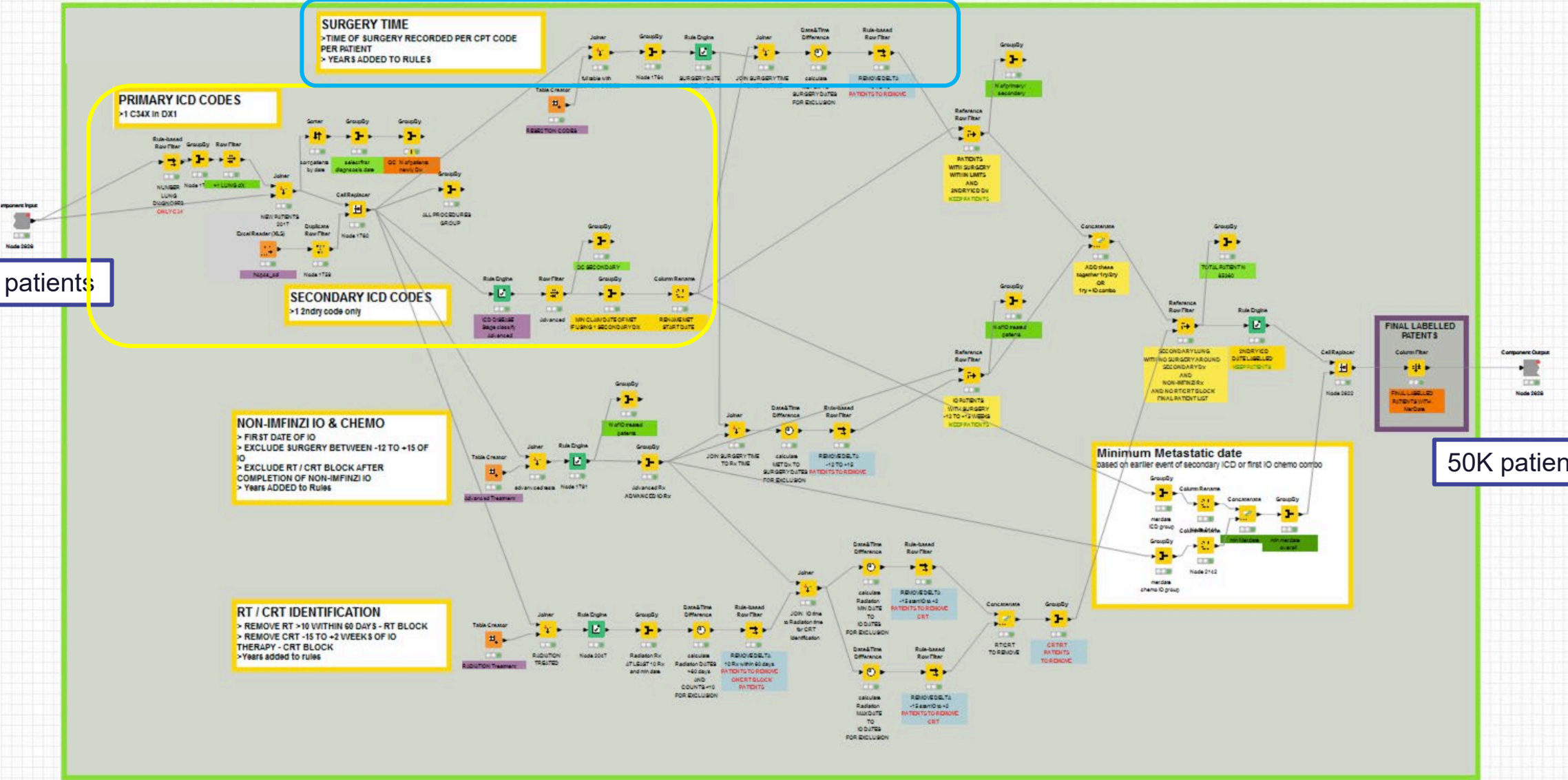
Enhanced data labelling: inclusions and exclusions



Case Study: Advanced Lung Cancer Rule

250K patients

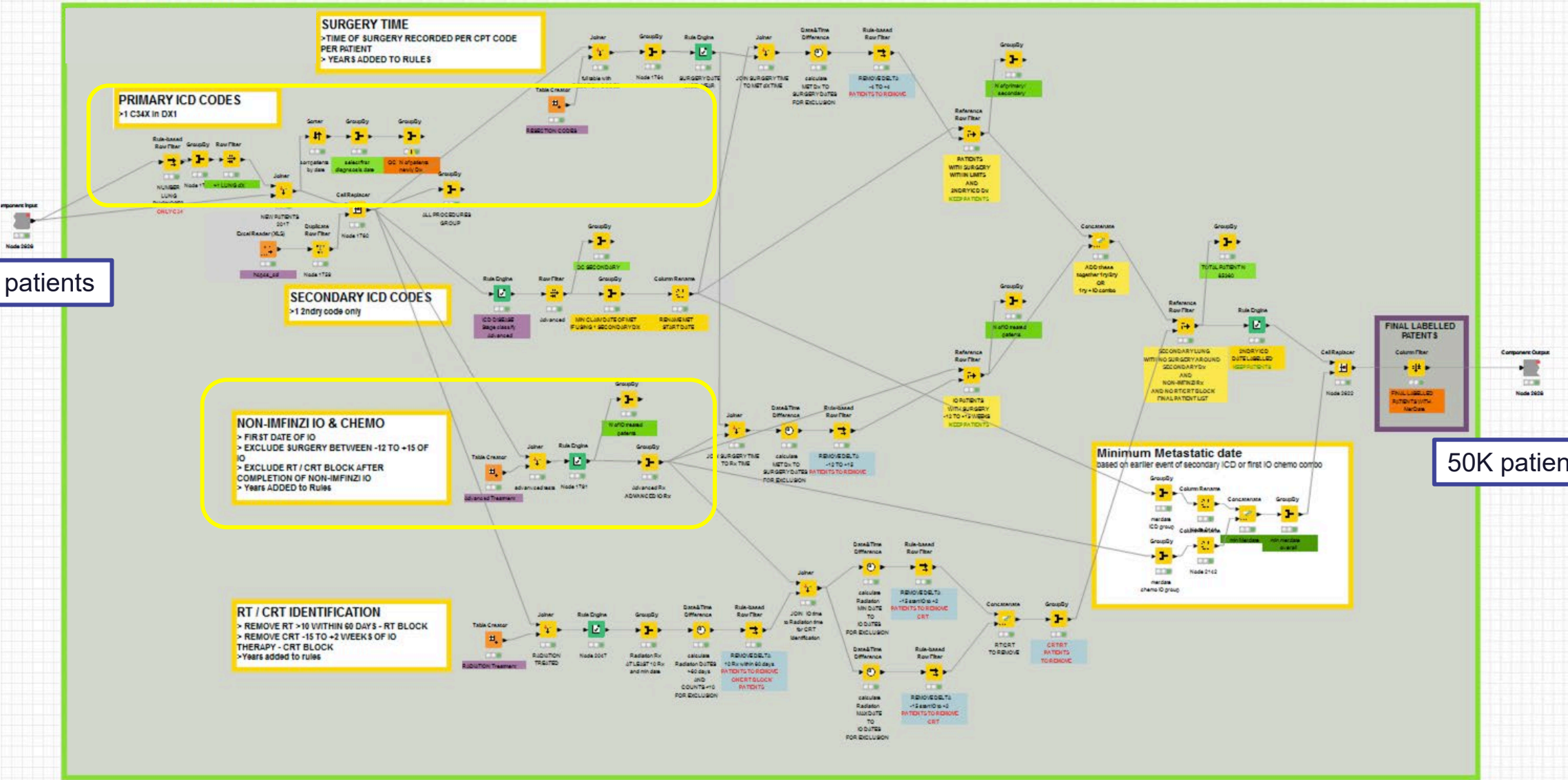
50K patients



Case Study: Advanced Lung Cancer Rule

250K patients

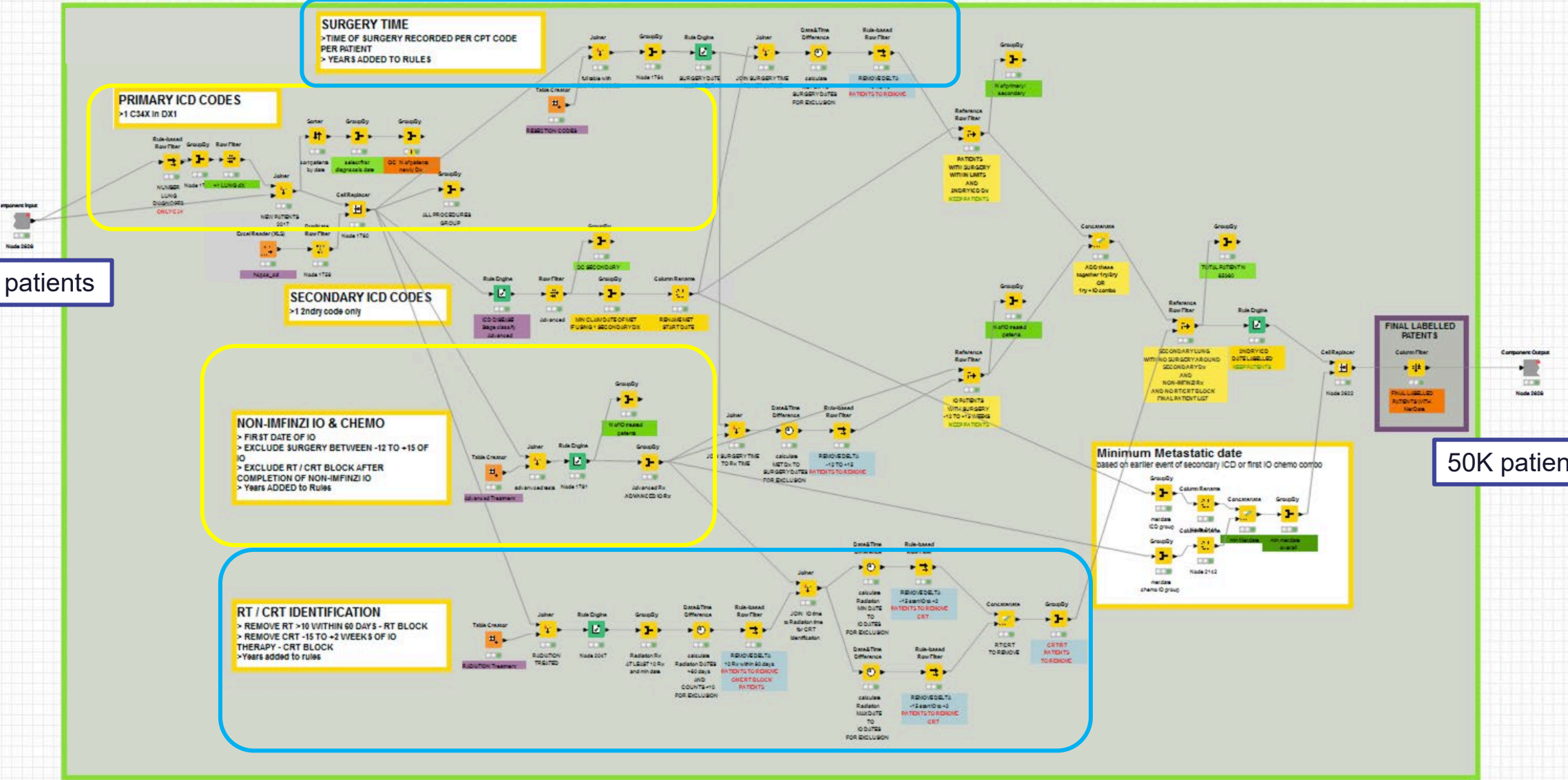
50K patients



Case Study: Advanced Lung Cancer Rule

250K patients

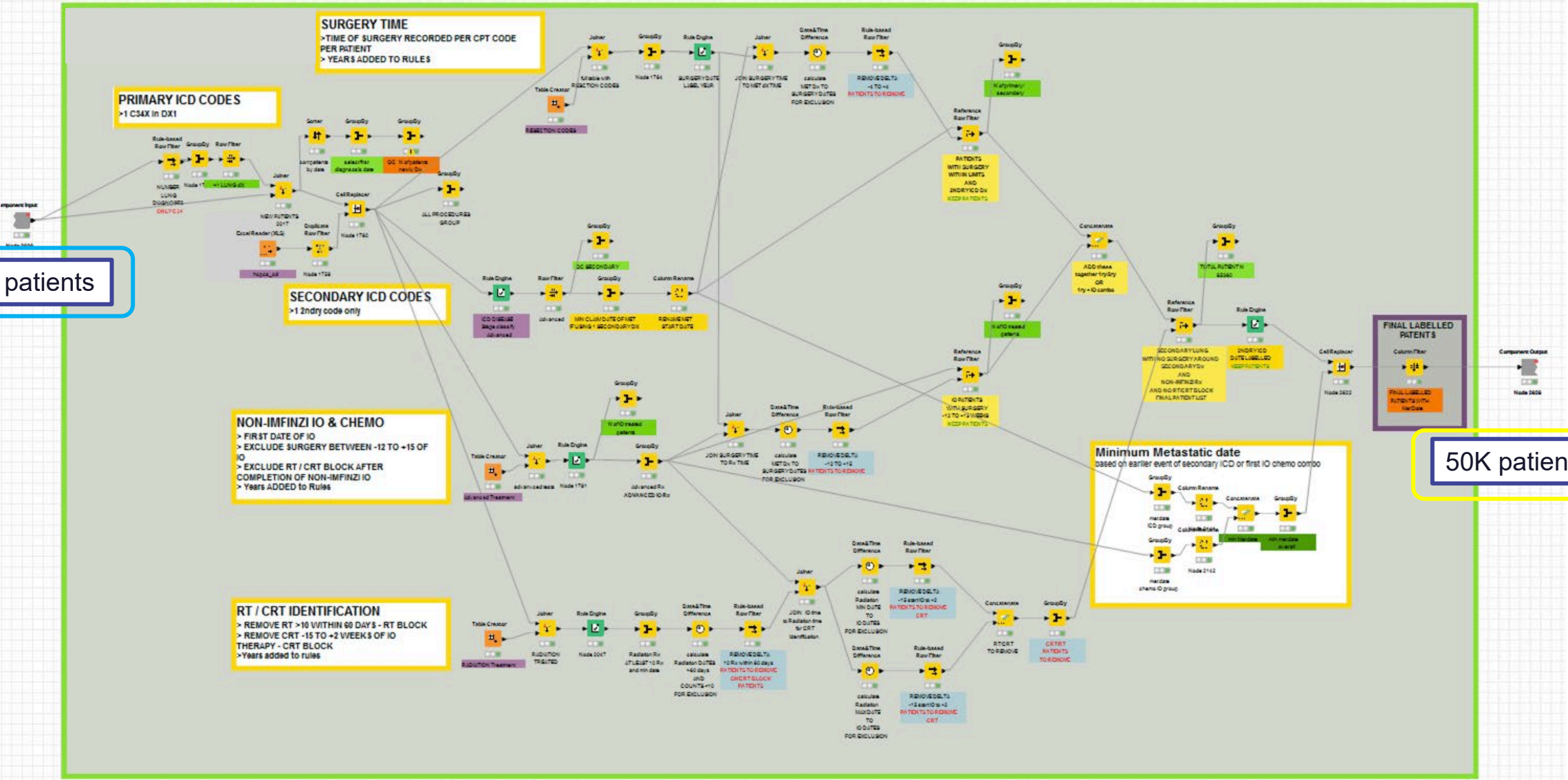
50K patients



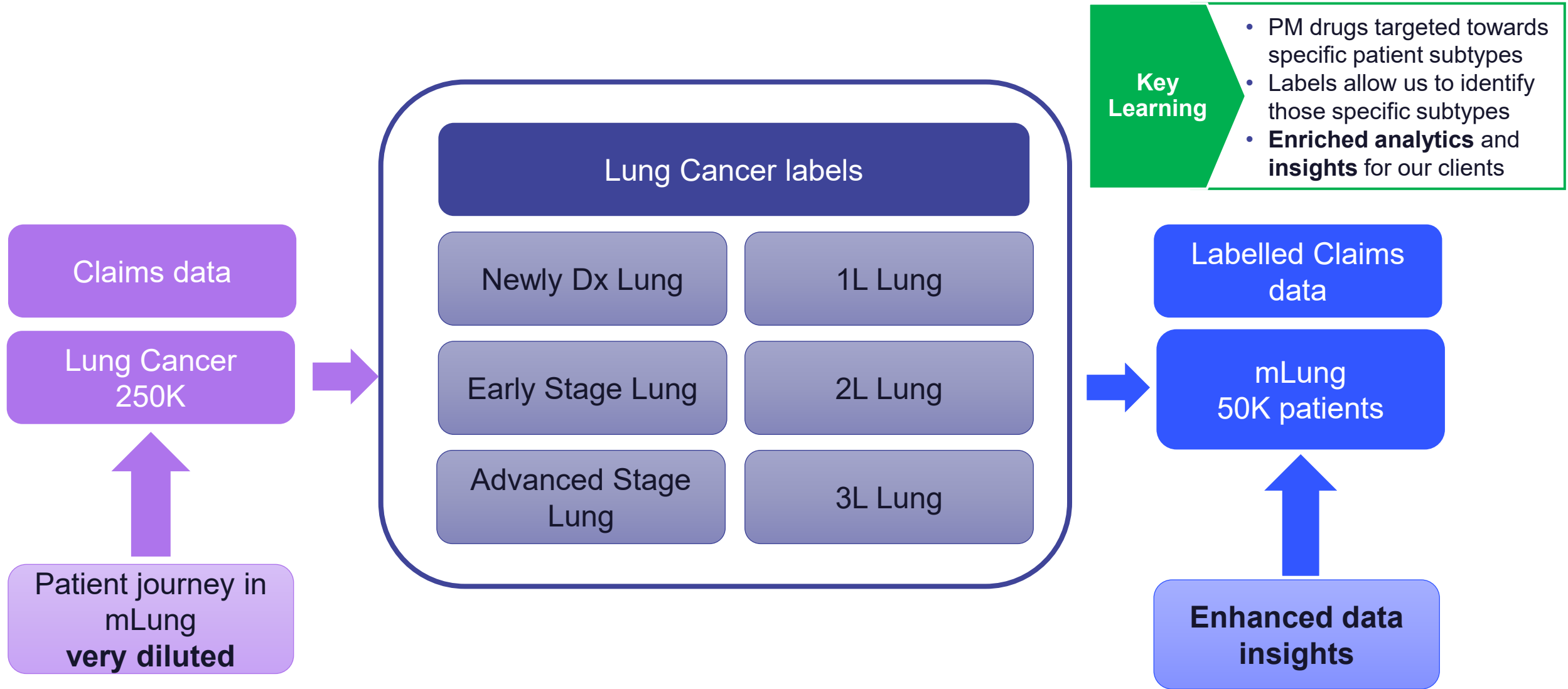
Case Study: Advanced Lung Cancer Rule

250K patients

50K patients



Power of labelling



Before KNIME

- Basic rule sets
- Wait for software engineers to code complex rules for each project
- Translation between clinical ask and the logical code was problematic

AFTER KNIME

- More complex rulesets
- Increase in project throughput
- Clinically minded folks create the rules visually, no translation errors