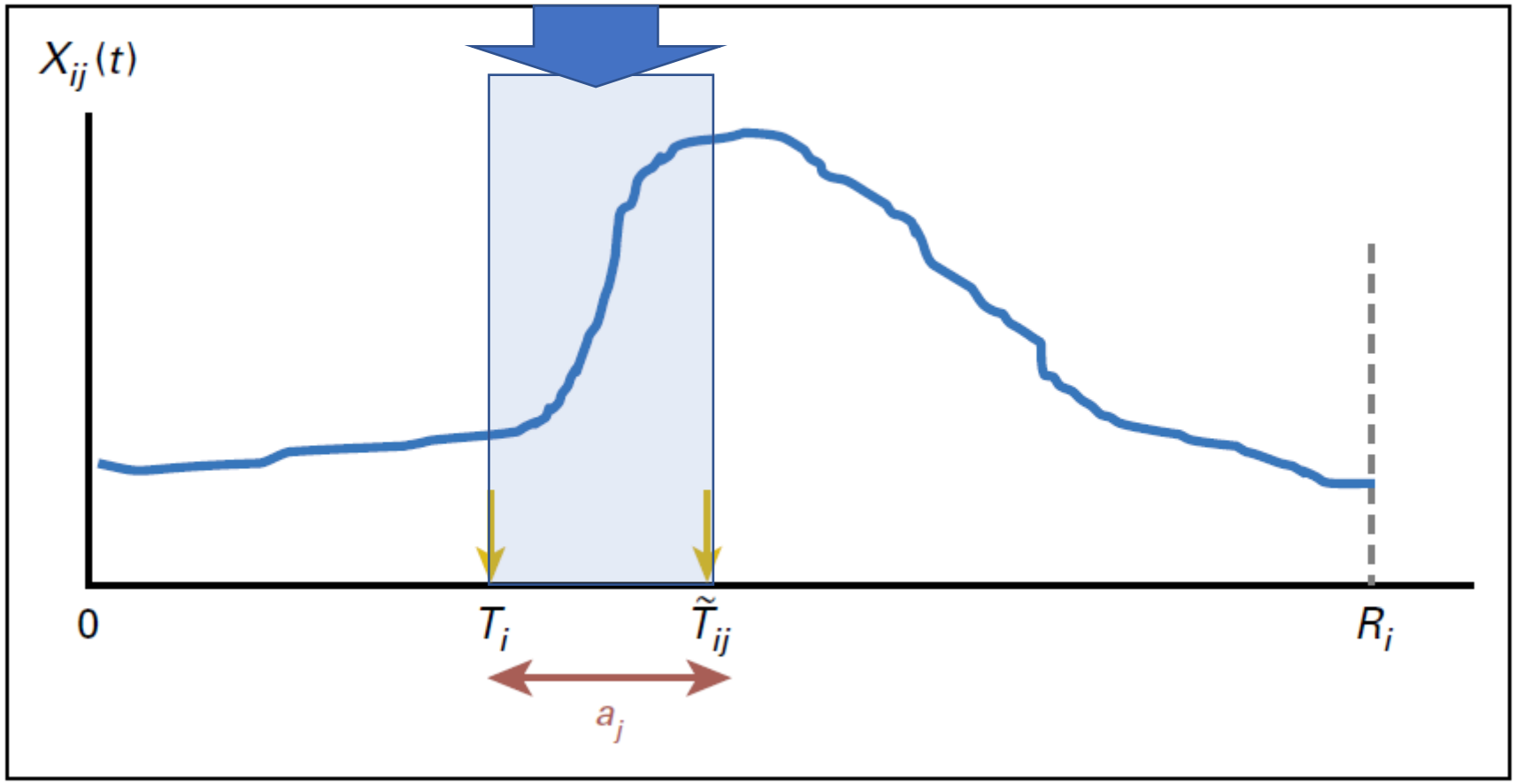
COVID Post Sequelae

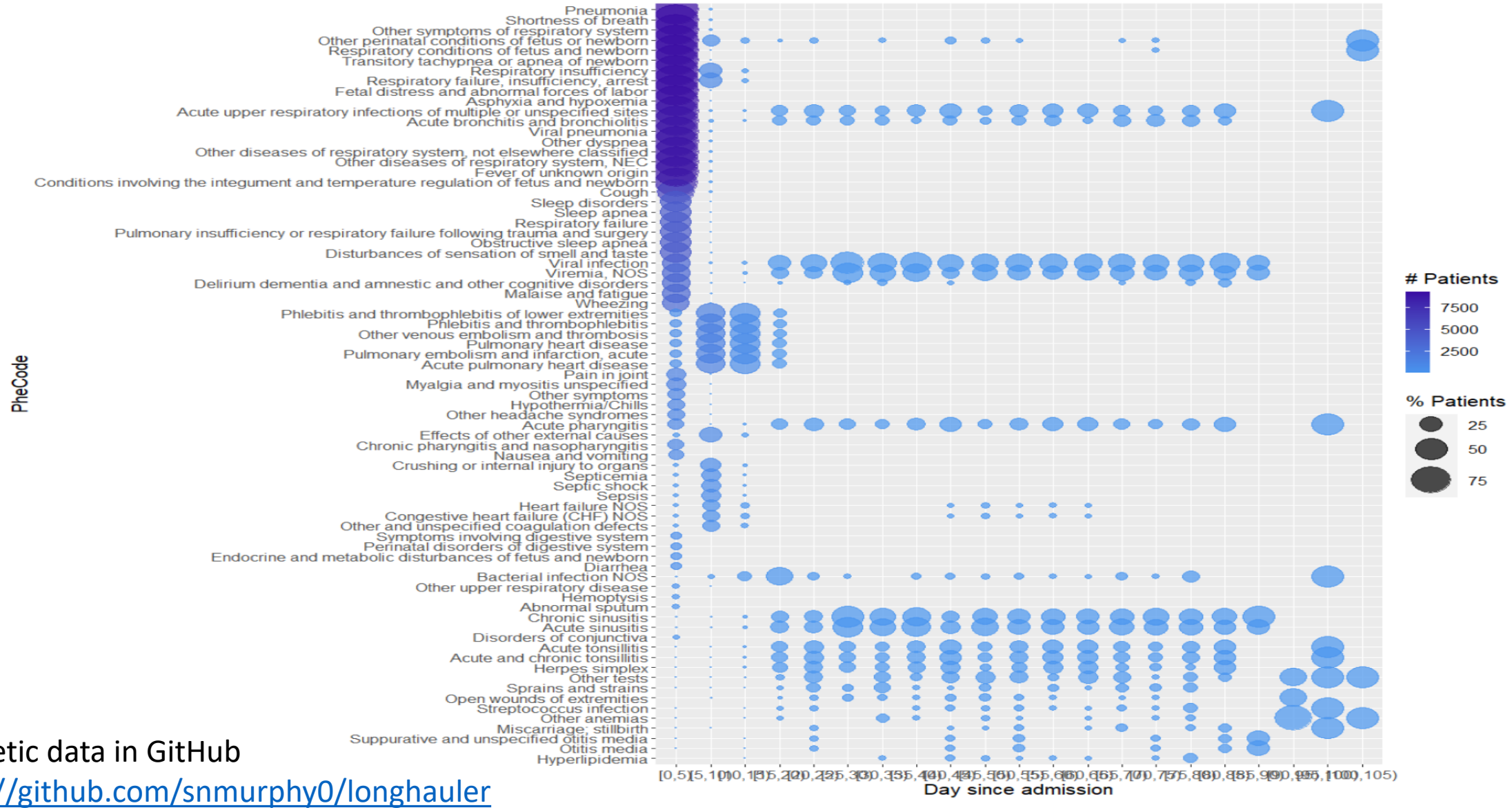
Visualization Approaches

Phenotype Code-Group Appears when plotted over time for each patient



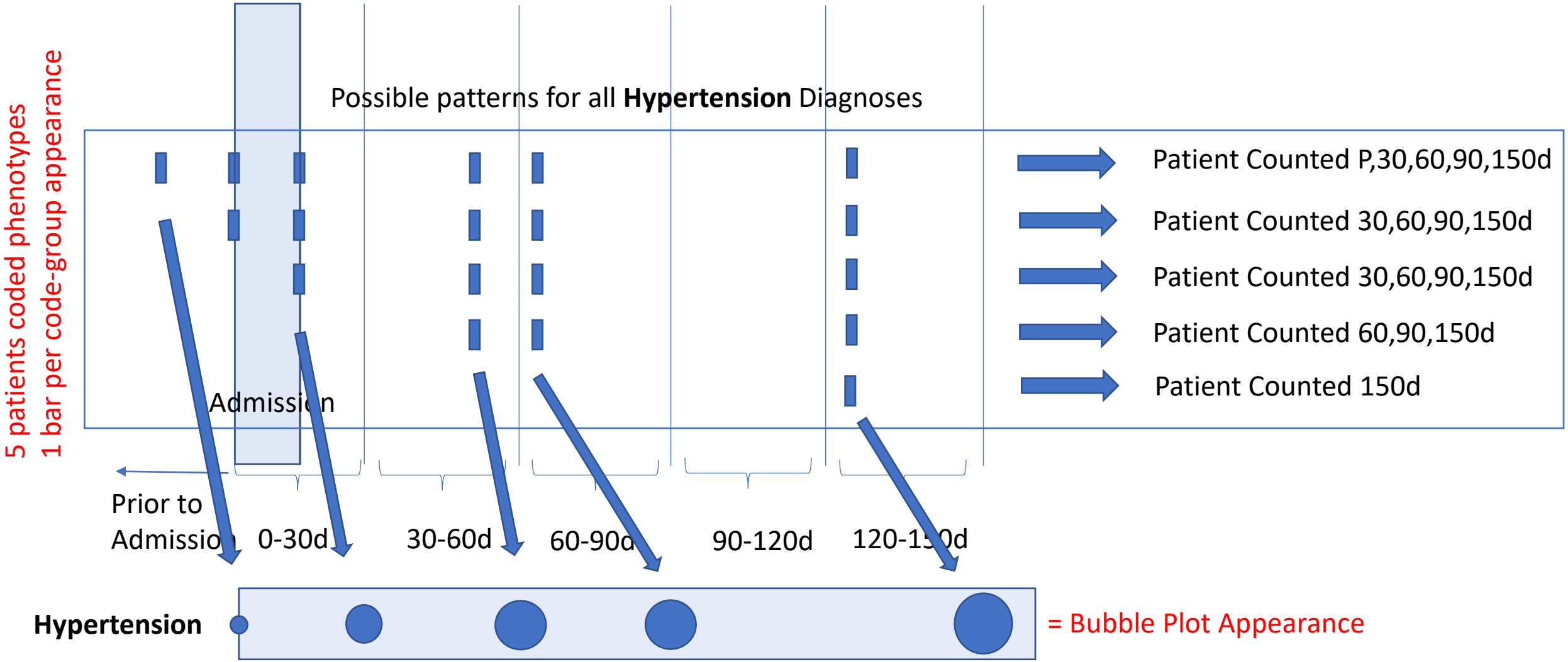
Uno H, Ritzwoller DP, Cronin AM, Carroll NM, Hornbrook MC, Hassett MJ. Determining the Time of Cancer Recurrence Using Claims or Electronic Medical Record Data. JCO Clin Cancer Inform. 2018 Dec;2:1-10. doi: 10.1200/CCI.17.00163. PMID: 30652573; PMCID: PMC6338474.

Overall Aggregate Bubble Plot Appearance



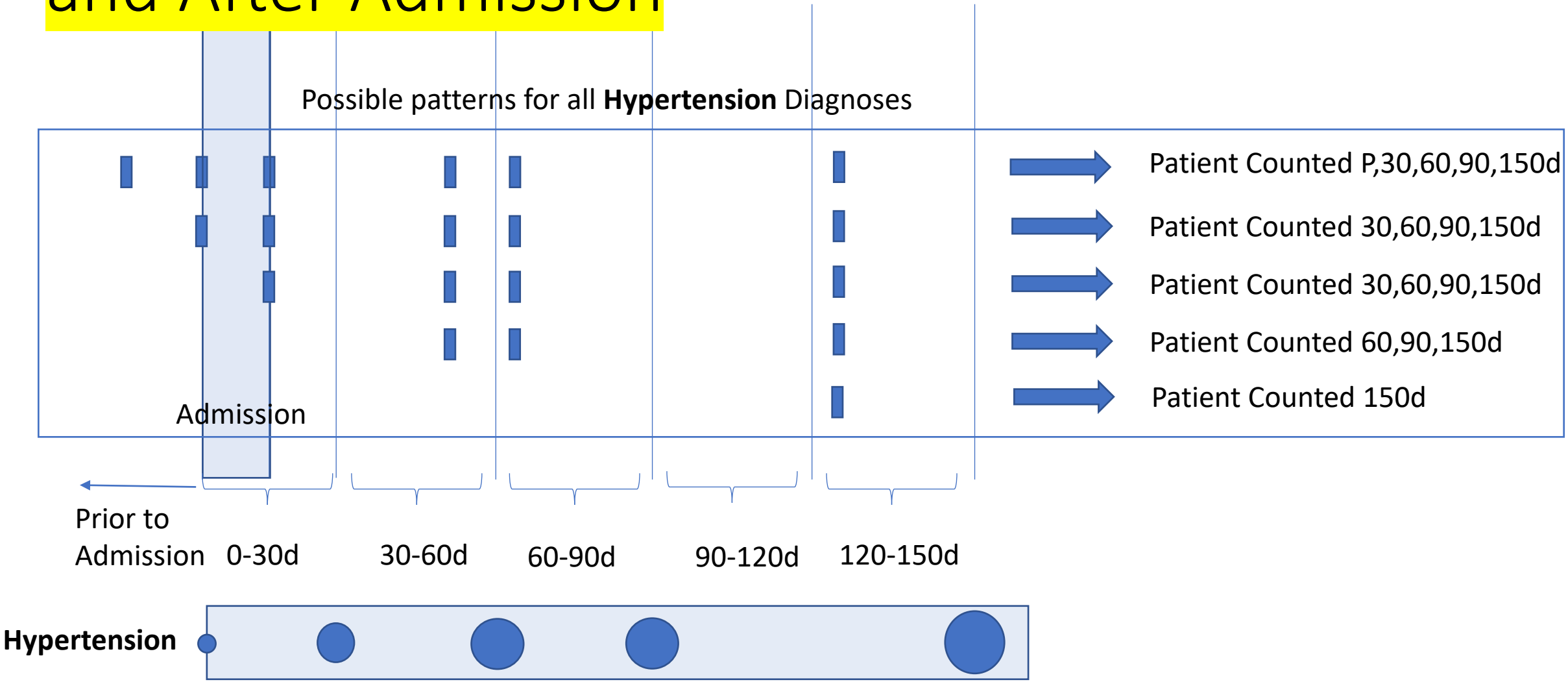
Synthetic data in GitHub
https://github.com/snmurphy0/longhauler

Building a row for “Hypertension” in 5 patients

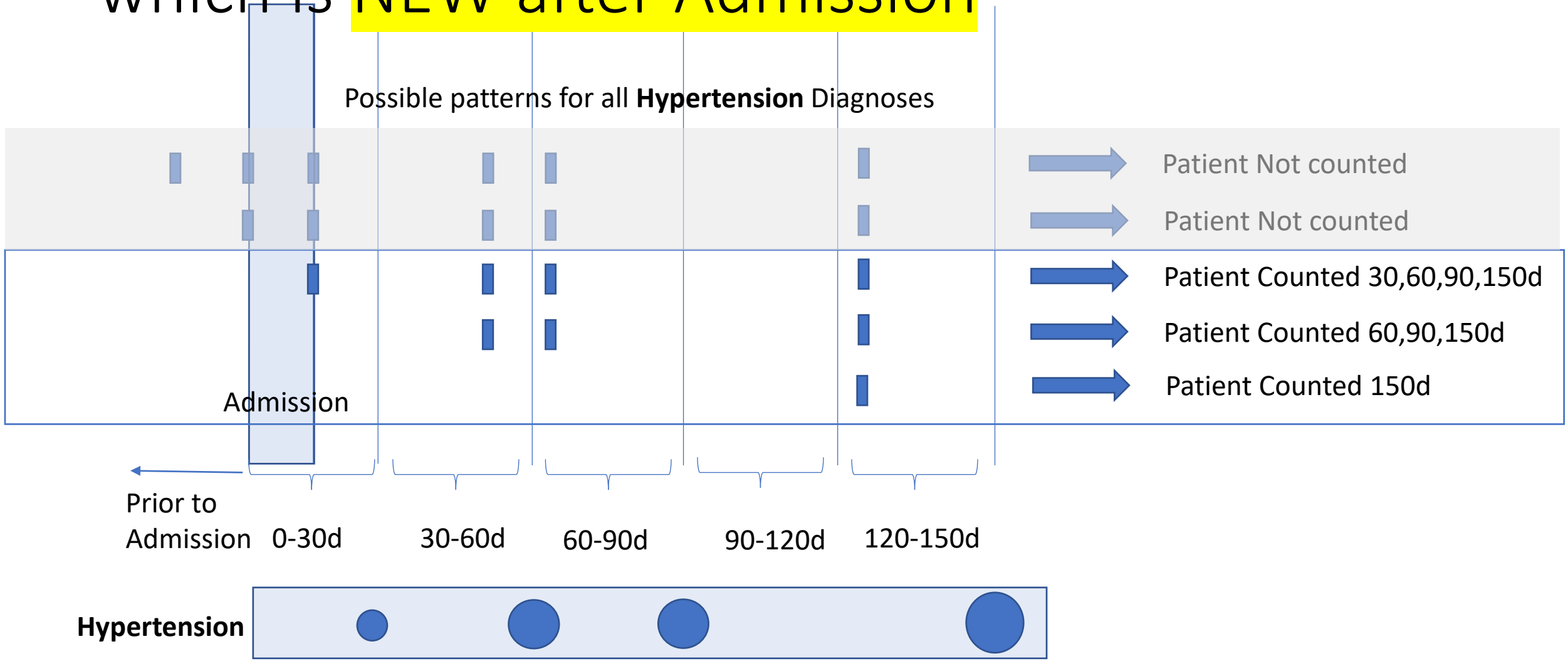


Bubble lines up with the time period mark and size is determined by # or % of patients

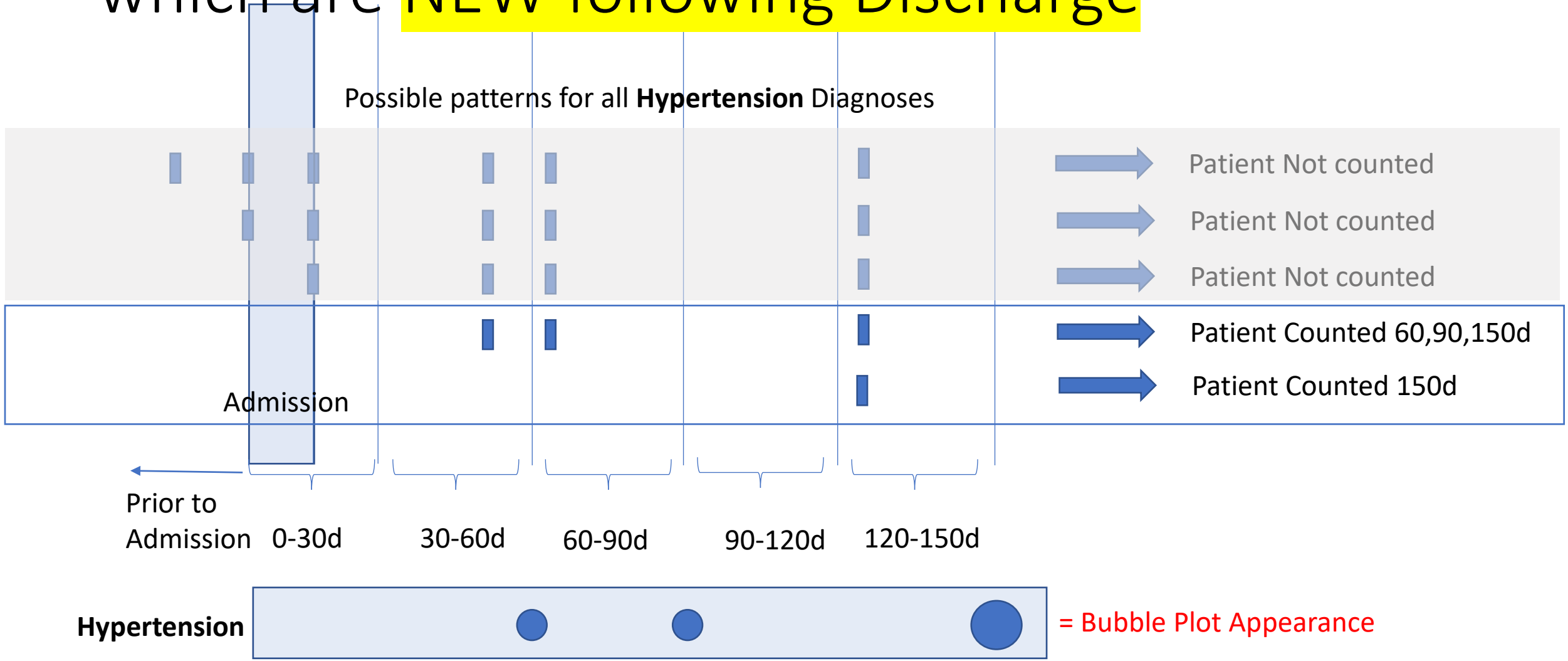
Case #1 – All Diagnoses counted On, Prior, and After Admission



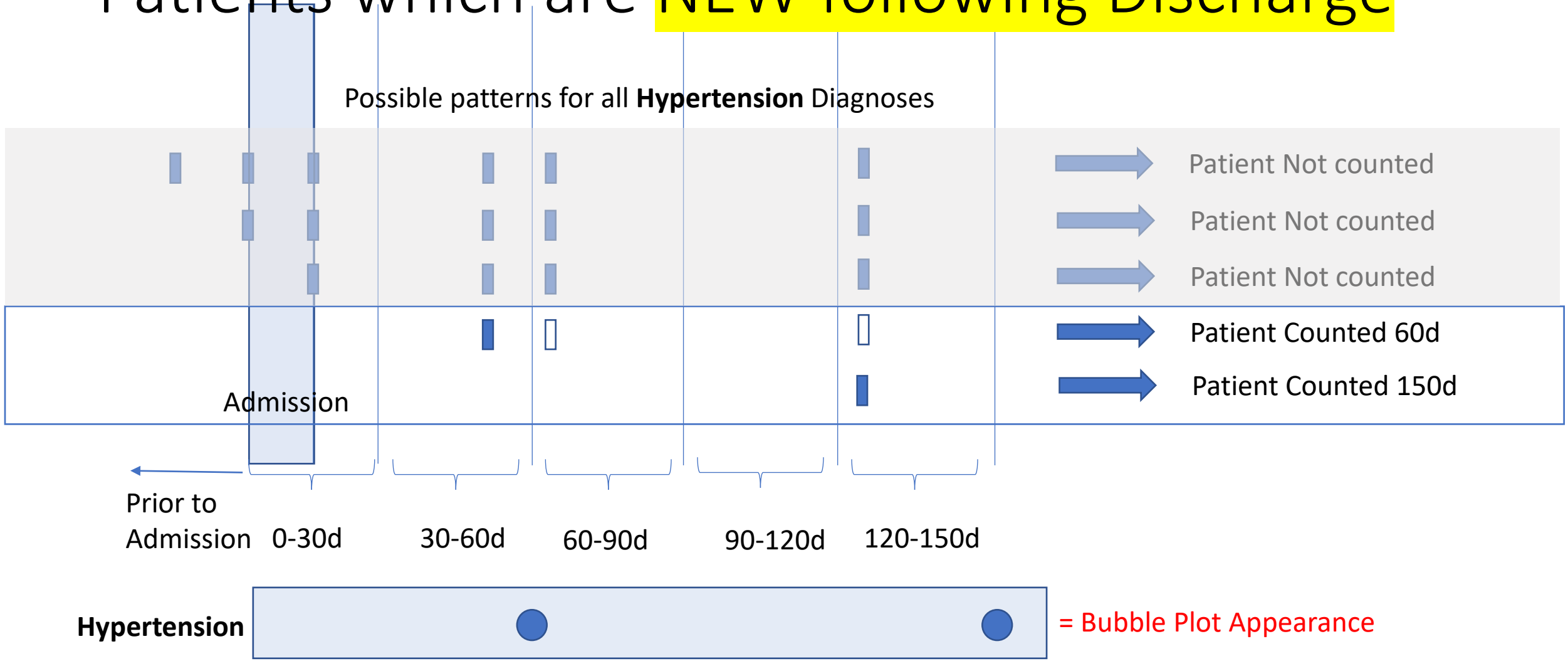
Case #2 – Only count Patients with Diagnoses which is NEW after Admission



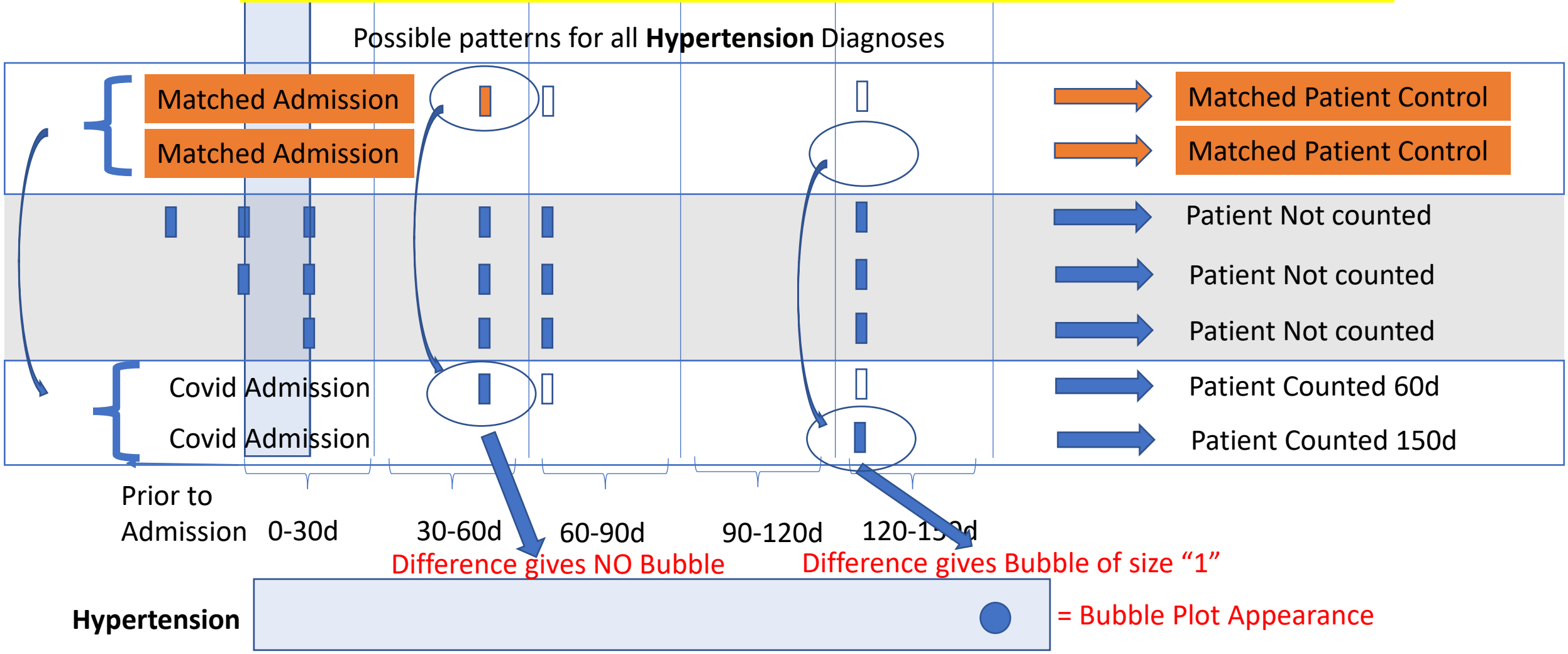
Case #3 - Only count Patients with Diagnoses which are NEW following Discharge



Case #4 - Only count First Diagnoses of Patients which are NEW following Discharge



Case #5 - First Diagnoses following Discharge AND Find Difference from Matched Controls



Comments on Matching

- Probably best done with loyalty cohort in place
  - Data for 1 year pre-admission of patient?
- Time alignment of index date
  - Cases and controls have admissions
    - May be separated by many years, i.e. cases could be in 2019
  - Cases and controls have covid test
    - Controls have negative covid test
- Matching strategy
  - Propensity scoring
    - Needs set of covariates
  - Binning
    - Bins with slicing of 2-3 covariates may get too small for analysis