

CO APCD

Sequencing Algorithm

Sequencing is a set of value-add variables created for CO APCD standard de-identified data sets. Because those datasets are de-identified, they do not include dates of service. Sequencing allows data analysts to determine order and time between claims, broadening the applicability of the datasets.

Views

- COAPCD_Extract.xXXXX_Medical_Claims_Sequencing
- Sequence, Member_Composite_ID, Claim_ID, Days_Between_Claims, Service_Year.
- Output is the COAPCD Standard De-Identified Dataset Level I, II, III

Data Type

- Medical_Claims_Sequencing, integer
- Pharmacy_Claims_Sequencing, integer

Quality

- Sequencing uses Dense_Rank, so there are no gaps in the sequence numbers for a specific individual + service year + line of business.
- All of a patient's claims on a given day will have the same sequence number.
- Sequencing is unique to each client generated standard dataset.

Purpose

Without date of service, sequencing is needed to understand the order of relative timing of medical and pharmacy claims associated with a patient during a single calendar year and within a single line of business.

Client Guidance: sequencing represents a convenient way to understand the order/sequence that claims occurred and the time between the claims in a de-identified dataset which does not include dates of service.

Sequence	Member Composite_ID	Claim_ID	Days_Between_Claims	Service_Year
1	4534	140131080	0	2022
2	4534	471501246	147	2022
1	4534	749114531	0	2023
2	4534	943050998	301	2023

Logic: sequencing is tied to the member_composite_id and service date. It resets January 1 every year. The sequence of medical and pharmacy claims is generated separately for each selected line of business (Commercial, Medicaid, Medicare FFS).

In the example above, for 2022, claim 1 is claim_id 140131080. The first claim of the year will always have 0 for days_between_claims. Claim 2 in 2022 (claim_id 471501246) occurred 147 days after claim 1. For 2023, claim 1 is claim_id 749114531 with 0 days_between_claims. Claim 2 in 2023 (claim_id 943050998) occurred 301 days after claim 1.