Preferring Multiple Concepts (Inference Mode)

MetaMap’s `--prefer_multiple_concepts (-Y)` generates shorter, rather than longer concepts and can be used to draw inferences among concepts.

MetaMap by default identifies longer concepts (i.e., those matching a greater portion of the input text) rather than shorter ones. E.g., from the input string `lung cancer`, MetaMap will identify `C0242379:Lung Cancer` rather than separate concepts for `lung` and `cancer`. Identifying the longest, most specific concepts is the preferred behavior for most applications.

However, for certain applications such as NLM’s SemRep, this longest-concept behavior may not be desirable, if your research interests involve inferring semantic relationships among the concepts that MetaMap returns.

In the case of `lung cancer`, returning separate concepts for `lung` and `cancer`, e.g.,

```
C0024109:LUNG
C0006826:CANCER
```

might allow a downstream application to infer relationships such as

```
lung IS_LOCATION_OF cancer
```

or

```
cancer AFFECTS lung
```