

Adding new reserved words to Arden: current, ever, right now

Ever and right now are easy to understand and don't have to be further defined for the specification to be computable.

Current is context-sensitive and can be fuzzy. For example, if you want to know whether the cough is related to smoking, you don't ask about whether the patient is a smoker right now, but whether he was a smoker in the past 3 weeks or some other time period, depending on how long the person has been a smoker (2 weeks, 4 years, 20 years).

It is easier to define the criterion in Level A using the reserved word "current", and then at level B, the knowledge engineer should define what is meant by current. The definition may not be simple. If a definition is not given, then it cannot be computed from the EPR, and a UI will ask the user for an answer.

Example:

chronic cough in immunocompetent adults

Without the use of current and ever:

latest Cough.critical_time.high \geq **now** and (**latest** Cough.critical_time.high – **latest** Cough.critical_time.low) > 3 weeks and not Immunocompromised and **latest** Age \geq 18

With the use of current and ever:

current Cough and (**current** critical_time.high - **current** Cough.critical_time.low) > 3 weeks and not **ever** Immunocompromised and **current** Age \geq 18