

Conceptual outline for the NLP System implemented in the FH eAlgorithm

[Replicates algorithms 1-6 outlined in the [Pseudocode](#)]

A code of 1 is returned for a diagnosis of premature ASCVD (CHD/CVD/PAD) if the keyword search in the “Family History” of clinical notes detects any of the aforementioned ASCVD-specific terms in first-degree relatives within the predefined age brackets (**Figure 4A**).

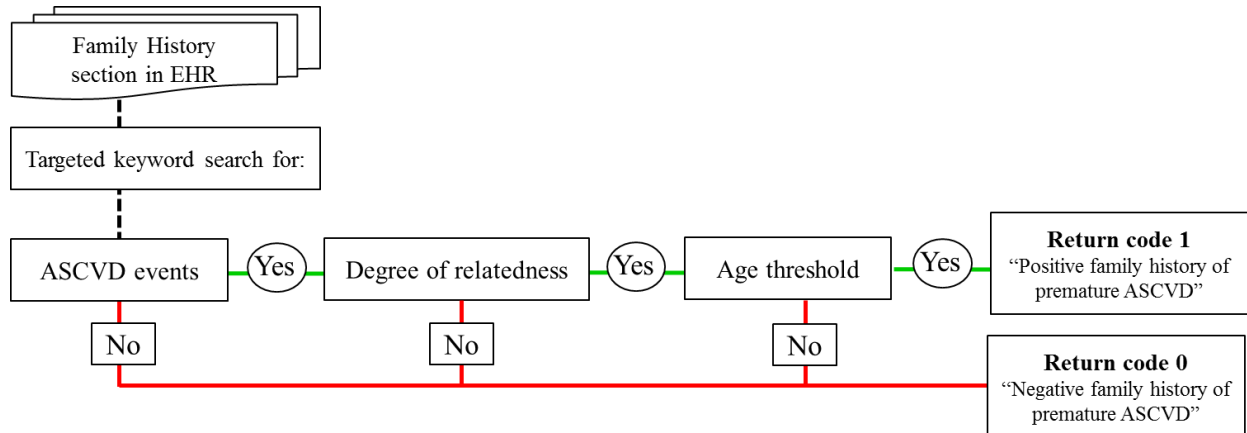


Figure 4A. Logic for returning a positive/negative family history of ASCVD from EHR.

A code of 1 is returned for a family history of hypercholesterolemia if the keyword search in the “Family History” and/or PPI sections in EHR detects any of the aforementioned hypercholesterolemia-specific terms in first-degree relatives (**Figure 4b**).

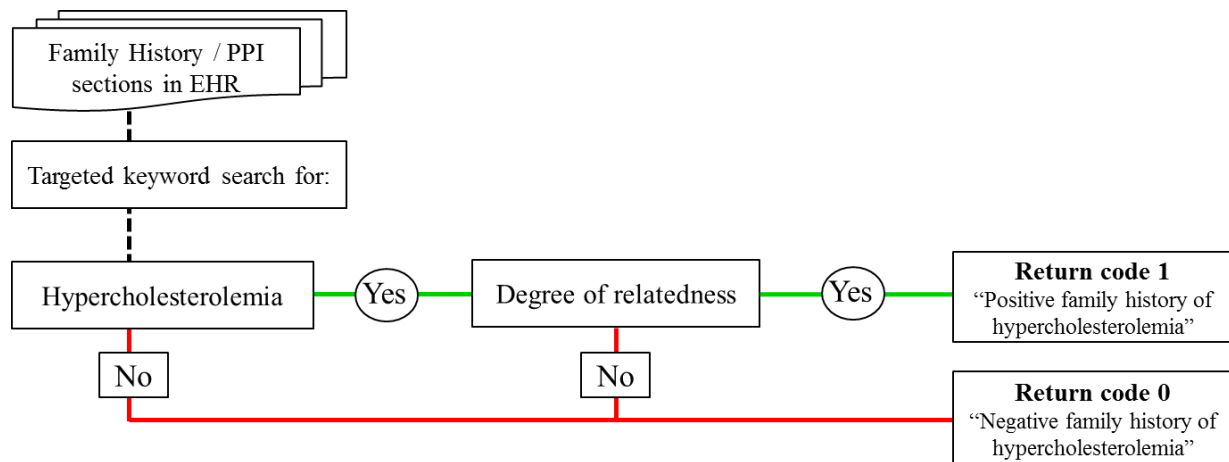


Figure 4B. Logic for returning a positive/negative family history of hypercholesterolemia from EHR.

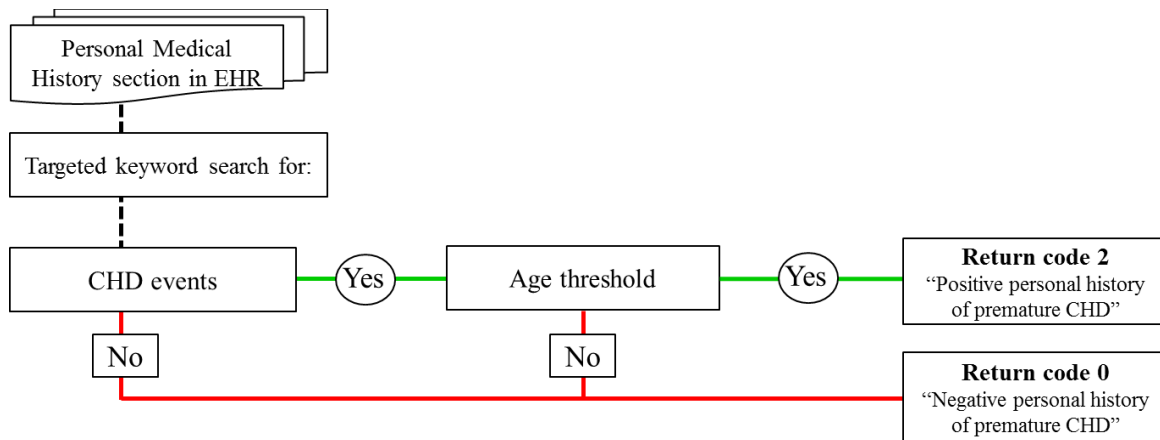


Figure 5A. Logic for returning a positive/negative personal history of CHD from EHR.

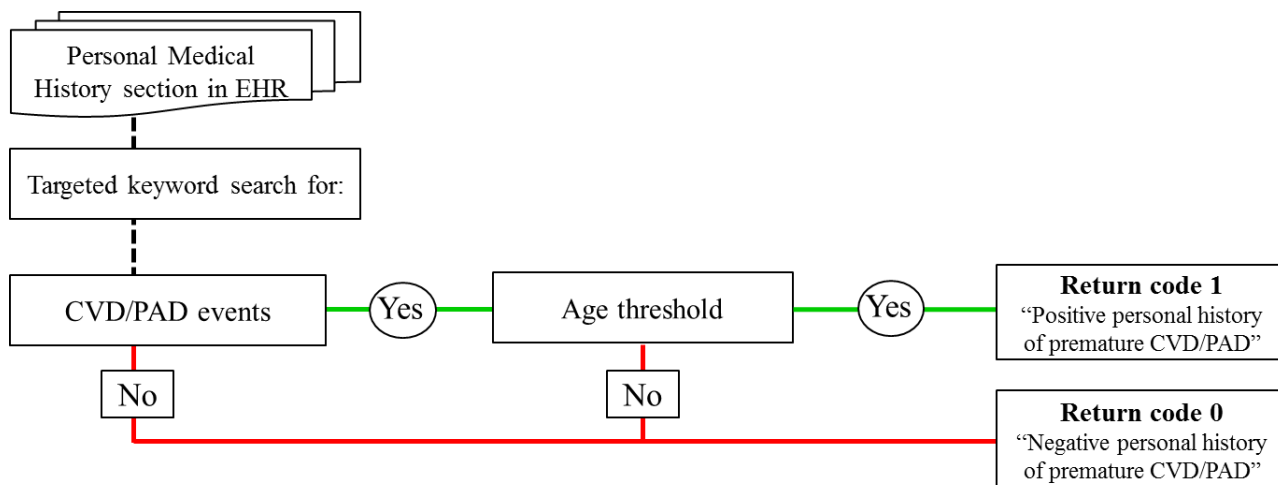


Figure 5B. Logic for returning a positive/negative personal history of CVD/PAD.

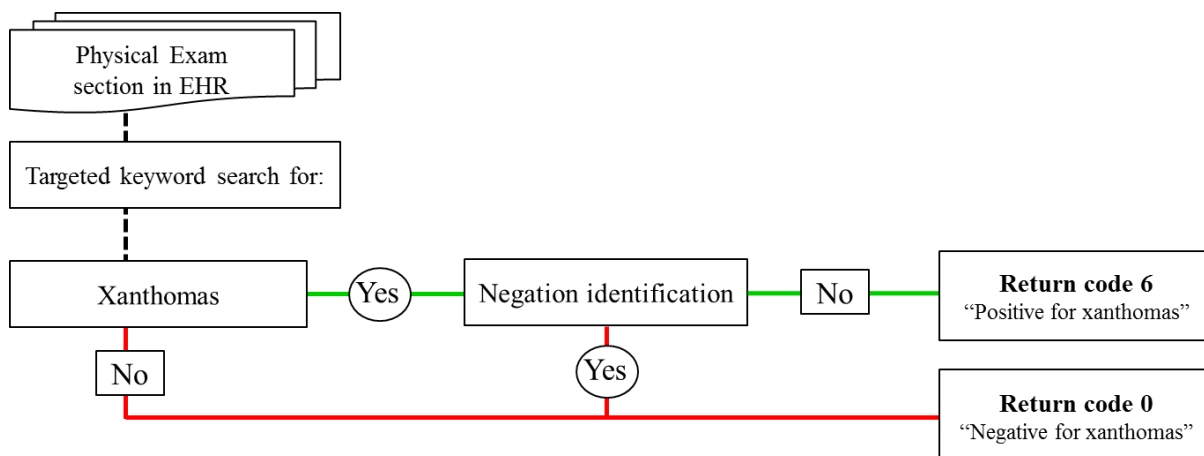


Figure 6. Logic for returning a positive/negative xanthoma variable from EHR.

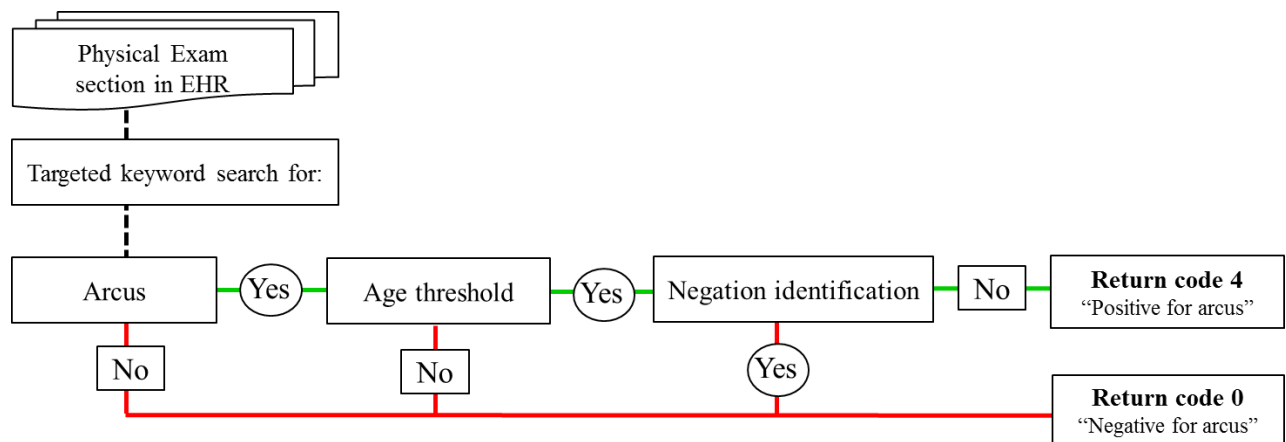


Figure 7. Logic for returning a positive/negative arcus variable from EHR.