**Rules for standard phenotype names:**

1. General Rules:
   1. Prioritize readability
   2. No names shall exceed 32 characters
   3. Limit special characters to only allow underscores
   4. Prioritize variable names without underscores\* whenever possible. For example:
      1. All Start/End/Duration variables will have no underscores
   5. Groups of phenotypes exist and shall follow these rules:
      1. Procedure Type phenotypes begin ProcType
      2. Anesthesia Technique phenotypes begin AnesTechnique
      3. Drug types given phenotypes begin [DrugType]Given
      4. BP Observation phenotypes begin BPObs
      5. Comorbidity phenotypes begin Comorb[Category/Source]
      6. Complication phenotypes begin Comp[Category/Source]
      7. Blood product phenotypes should be:
         1. [TypeOfBloodProduct]derived\_[units]
         2. [TypeOfBloodProduct]raw\_[units]
         3. [TypeOfBloodProduct]volume\_[units]
      8. Common medical abbreviation should be used such as:
         1. BP for blood pressure
         2. Dx for diagnosis
         3. Txp for transplant
         4. Hx for history
2. \*Exceptions that do have underscores:
   1. All Quality Measures are listed as: *QualityMeasureName*\_*DatabaseListing*
   2. Notes variables including *PhenotypeName*, *PhenotypeName\_Orig*, *PhenotypeName\_VC, PhenotypeName\_OrigNoteTime*
   3. Non-notes variables that include a value code version will have two variables that are *PhenotypeName* and *PhenotypeName\_VC*
   4. Variable names that include units (e.g., units of time, volume) are *PhenotypeName*\_*UnitOfMeasure*
   5. Variable names that include time relationship with procedure (e.g., preop, postop, intraop, unknown timing) are *PhenotypeName*\_*TimeRelationship*.