Cumulative pregnancy (PG) rate per follicle aspiration (FA)

- Calculation of cumulative pregnancy rate per follicle aspiration (FA) considers fresh cycles (IVF, ICSI, IVF/ICSI)
 where FA is performed, as well as corresponding thawing cycles (thawing cycles where material from these
 cycles is used).
- Calculation is performed according to the following rules:
 - 1. **Fresh cycle with FA is ART1, ART2 or ART3**, depending whether it is first, second or third attempt to get pregnant; fourth, fifth or later attempts are not considered.
 - 2. Cycle has **positive outcome** if either fresh cycle itself, or some of corresponding thawing cycles, ends with clinical pregnancy (PG). Cycle with positive outcome contributes to the final sum of achieved PG with 1:
 - if cycle is ART1 cycle (first attempt), ART1_PG is increased by 1
 - if cycle is ART2 cycle (second attempt), ART2 PG is increased by 1
 - if cycle is ART3 cycle (third attempt), ART3_PG is increased by 1.
 - 3. Cycle has **negative outcome** if neither fresh cycle itself, nor any corresponding thawing cycle, ends with clinical pregnancy. Cycle with negative outcome contributes to the final sum of achieved PG with 0.
 - 4. **After achieving "ongoing" pregnancy** in a certain cycle (no matter whether it is first, second or third attempt), **next fresh cycle with FA** (if exists) **will be considered as next ART1 cycle** first attempt to again get pregnant (to get next child).
 - ! **Important:** it is not checked whether the child is actually born or not, but only if the PG is "ongoing".
 - 5. If pregnancy in a certain cycle is not achieved at all, or it is interrupted for any reason (not "ongoing" pregnancy), the next fresh cycle with FA (if exists) will be considered as next attempt to get pregnant: if cycle is ART1 (first attempt), next cycle will be considered as ART2 (second attempt); if cycle is ART2 (second attempt), next cycle will be considered as ART3 (third attempt); if cycle is already ART3 (third attempt), calculation stops (as mentioned, fourth, fifth or later attempts are not considered).
 - ! Important: not only first three cycles of a couple are used for calculation of cumulative PG rate, but all cycles (in certain time-range) which represent first, second or third attempts to get pregnant (one couple can have several ART1, ART2 or ART3, depending on the number of children they have/are willing to have). As mentioned, if a certain fresh cycle does not end with clinical PG, corresponding thawing cycles are analysed in order to determine if at least one of them ends with clinical PG.

Cumulative rates:

Rate 1 =
$$\frac{ART1_PG}{ART1_aspiration}$$
 · 100%

Rate 2 =
$$\frac{ART1_PG + ART2_PG}{ART1_aspiration} \cdot 100\%$$

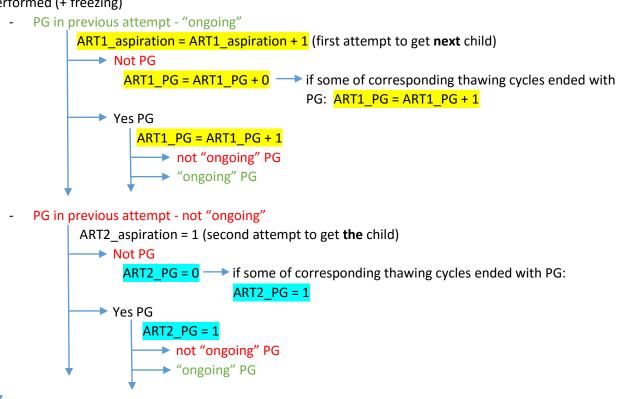
$$Rate \ 3 = \frac{ART1_PG \ + ART2_PG + ART3_PG}{ART1_aspiration} \cdot 100\%$$

- ART1 first attempts to get pregnant (fresh cycle with FA)
 - ART1_aspiration total number of FA in all first attempts to get pregnant
 - ART1_PG total number of PG achieved in all first attempts (fresh or corresponding thawing cycles)
- ART2 second attempts to get pregnant (fresh cycle with FA)
 - ART2_aspiration total number of FA in all second attempts to get pregnant
 - ART2_PG total number of PG achieved in all second attempts (fresh or corresponding thawing cycles)
- ART3 third attempts to get pregnant (fresh cycle with FA)
 - ART3 aspiration total number of FA in all third attempts to get pregnant
 - ART3_PG total number of PG achieved in all third attempts (fresh or corresponding thawing cycles)

1. FA performed (+ freezing)

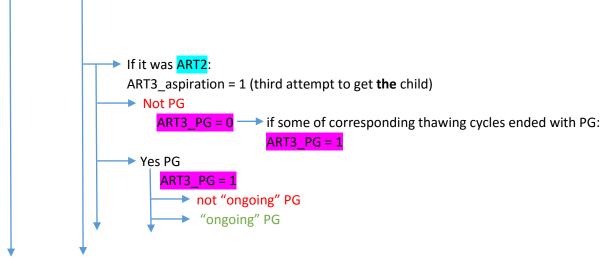
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ART1_aspiration = 1 (first attempt to get the child)
  Not PG
      ART1 PG = 0 \rightarrow if some of corresponding thawing cycles ended with PG: ART1 PG = 1
  Yes PG
         ART1 PG = 1
            → not "ongoing" PG
            "ongoing" PG
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2. FA performed (+ freezing)



3. FA performed (+ freezing)

PG in previous attempt - "ongoing" ART1_aspiration = ART1_aspiration + 1 (first attempt to get next child) Not PG ART1_PG = ART1_PG + 0 → if some of corresponding thawing cycles ended with PG: ART1_PG = ART1_PG + 1 Yes PG ART1 PG = ART1 PG + 1not "ongoing" PG "ongoing" PG PG in previous attempt - not "ongoing" If it was ART1: ART2 aspiration = ART2 aspiration + 1 (second attempt to get the child) ART2_PG = ART2_PG + 0 → if some of corresponding thawing cycles ended with PG: ART2 PG = ART2 PG + 1 Yes PG ART2 PG = ART2 PG + 1not "ongoing" PG "ongoing" PG



4. FA is done (+ freezing)

PG in previous attempt - "ongoing" ART1_aspiration = ART1_aspiration + 1 (first attempt to get next child) ▶ Not PG ART1_PG = ART1_PG + 0 -> if some of corresponding thawing cycles ended with PG: ART1 PG = ART1 PG + 1 Yes PG $ART1_PG = ART1_PG + 1$ → not "ongoing" PG → "ongoing" PG PG in previous attempt - not "ongoing" If it was ART2: ART3_aspiration = ART3_aspiration + 1 (third attempt to get **the** child) ART3_PG = ART3_PG + 0 -> if some of corresponding thawing cycles ended with PG: ART3_PG = ART3_PG + 1 Yes PG $ART3_PG = ART3_PG + 1$ not "ongoing" PG "ongoing" PG If it was ART3 (third attempt), next attempt is fourth STOP