How are Quarterly Drug Levels calculated?

This question came up during one of the coaching calls and I did not have an answer….so I asked some of our HOPE colleagues and this is what they said:

Measuring the amount of drug left in the ring allows us to estimate the amount of drug that was released and relate this to a participant’s estimated level of HIV protection. **Because the number of days a ring is worn directly impacts how much drug is released, results are adjusted to account for the number of days the participant had access to the ring.** This is done slightly differently for rings returned monthly vs. rings returned quarterly:

### Monthly

- When rings are returned monthly, individual ring results are adjusted based on the *actual number of days she had access to the ring* (i.e., the number of days between the ring being dispensed and returned)

- This applies to all participants during the first 3 months in the study, and for the duration of the study for participants who choose to pick up rings monthly

### Quarterly

- When rings are returned quarterly, individual ring results are adjusted based on an **assumed 28 days of use** as we do not have specific information on how long each ring was inserted.

- Quarterly results take into account the amount of drug released from all three rings used during that period, and are adjusted for the *actual number of days the participant had access to the 3 rings* (i.e., the number of days between the 3 rings being dispensed and returned).

- If any of the 3 rings don’t have results available, no quarterly results are calculated. This could happen if results are pending, a ring was lost/not returned, or due to testing issues at the lab.
**COACH Team Newsletter**

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**Reviewing Multiple Ring Drug Levels with Participants**

As more sites begin to do Month 6 sessions more regularly, we have begun to hear feedback from some counselors that the discussion about residual drug levels can be lengthy because the counselor is supposed to explore reactions to the Quarterly results and for each individual ring.

Here is a way to keep these discussions from becoming too long.

First, present the Quarterly result and explore the participants reactions to it. Then look at the individual ring results. If the results are consistent (meaning that all of the results are the same), there is no need to go into an in-depth exploration of the reasons for each result and what they mean for her HIV prevention plan. Instead, point out that all the Rings had a level of 3 (or there were two 3’s and one 2), which shows high protection, and explore the participants thoughts about that.

You should, however, do a bit more exploration when the drug level results are lower (0’s or 1’s) or when you see some variability in the results.

For example:

- Ring Code 4.0: 3
- Ring Code 5.0: 1
- Ring Code 6.0: 3

In this scenario it could be useful to explore what may have been different about the time period in which Ring #5 was used, compared to the other two months.

Most participants are consistently getting 2s and 3s for their drug levels, so this should help in reducing the length of many sessions.

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**Happy Holidays to the entire COACH Counselling Team! May you all enjoy a well-deserved break and start the new year off right!**