
Retention

(MOP 17)

Myrlene Staten, MD
NIDDK



Terms that are easily confused

- Non-retention
- Inactive
- Lost-to-follow-up
- Non-adherence

Non-retention

- Definition: **Going off study**
- Participants can go “off study” *only for withdrawal of consent*, which is defined as “no longer wishing to participate in all aspects of the trial.”
 - Verbal or written withdrawal of consent is required
- The site investigator may also withdraw participants for a safety reason, but that will be a rare occurrence.

Inactive vs. lost to follow up

- Participants who have not returned for 2 consecutive visits and have not been in contact with study are **inactive**. They have not gone “off study” (i.e. have not provided a verbal or written *withdrawal of consent*)
- **Inactive** reflects the possibility that they will resume adherence with study medication and will return for outcomes measurements. We continue to try to engage these participants.
- Pregnancy is a special example of **inactive** status.
- A participant that has been **inactive** is not “lost to follow up” until the end of the study.

Lost to follow-up

What is D2d's goal for *Lost to follow-up*?

Zero!

Why is it important?

- Study power
- Impact of study results

Lost to follow-up

- Look Ahead—2013
 - 4957/5145 completed the study (3.7% LFU at 9.6 yrs)
- Diabetes Prevention Program (DPP)--2002
 - 2991/3234 had visit within 5 months of study close (7.5% LFU at 2.8 years, 2.5% per year)
- DPPOS (Outcome study) still ongoing
 - Only 50/2776 subjects LFU at 10 years (LFU 1.8%)
- ACT NOW—2011 (pioglitazone for prevention)
 - 441/602 completed study (26.7% LFU at 2.4 years)

Lost to follow-up

< 5% total
for the entire
study

- Sample size assumption: loss-to-follow-up or going “off study” rate less than 5% per year
 - *Any loss-to-follow-up will minimize study power*
- D2d retention so far = 99.5%

Randomized, n	594
Off study, n (% randomized)	5 (1)
Withdrew consent ¹	3
Death	0
Other	2 ²
Completed study, per protocol	0
Inactive, i.e., missed 2 consecutive visits ³	1
In contact with site	
Pregnant	
No contact with site	1

Adherence

- Definition: Adherence to study medication and study visits and procedures
- Goal: pill counts of greater than 80%
- Critical to interpretation of results and impact of study
- Achieved 25OHD concentration
 - Secondary Outcome = Variability of response to vitamin D supplementation by adherence based on pills counts and by achieved 25OH concentration.
- D2d adherence at M06 (n=219) = 95.2%

Non-retention ≠ Non-adherence

Participants, for safety reasons, personal choice or any other reason, may go “off study medication.” However, they will continue with outcomes assessment as planned.

Example of Success

	Study
Randomized, n	594
M03 visits expected, i.e., reached end of window, n ¹	393
Returned for visit, n (% of those that reached end of window) ²	383 (97)
M06 visits expected (i.e., reached end of window)	177
Returned for visit, n (% of those that reached end of window)	167 (94)

- As of 10/15: n=10 had overdue M6 visits
- By 11/7: n=5 had returned for their visit!

Example of Success

Don't give up!

Keep making attempts to get people in for follow-up visits. Retention is the single most important metric of study conduct.



What is the most important factor for maintaining high retention and adherence rates?

You...

and your relationships with your participants!!

Terms that are easily confused

- Non-retention (off study, withdrew consent)
- Inactive (temporarily not being followed)
- Lost-to-follow-up (off study at end of study)
- Non-adherence (not attending visits or taking study meds per protocol)