**Open Research Disclosure Form**

**Manuscript Title: Smoking reduction trajectories and their association with smoking cessation: A secondary analysis of longitudinal clinical trial data**

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1. Provide the URL, DOI, or other **permanent path** for accessing the data in a **public, open-access repository**:

**[ ]** Confirm that there is sufficient information for an independent researcher to reproduce **all of the reported results**, including codebook if relevant.

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1. Provide the URL, DOI, or other **permanent path** for accessing the materials in a **public, open-access repository**: https://github.com/ajbarrows/mcneil-lca

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1. Provide the URL, DOI, or other **permanent path** to the registration in a **public, open-access repository**\*: <https://osf.io/qh378/> (DOI 10.17605/OSF.IO/QH378)

2. Was the analysis plan registered prior to examination of the data or observing the outcomes? If no, explain.\*\* Yes

3. Were there additional registrations for the study other than the one reported? If yes, provide links and explain.\* No

4. Were there any changes to the preregistered analysis plan for the primary confirmatory analysis? If yes, explain.\*\*

We made two minor changes to the preregistered analysis plan. First, we employed regularized regression (i.e., Elastic Net) as a variable selection procedure rather than stepwise selection multinomial regression in order to obtain nonparametric parameter estimates and reduce confounding due to multicollinearity. Second, we determined biochemically verified smoking cessation using a breath carbon monoxide (CO) cutoff of <6 parts per million (ppm) to reflect more recent guidance. Predictive modeling results using this preregistered cutoff are reported in the supplemental materials.

5. Are all of the analyses described in the registered plan reported in the article? If no, explain.\*

Yes.

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\*\* If the answer to (2) is “no,” the notation DE (Data Exist) will be added to the Open Research Badge section, indicating that registration postdates realization of the outcomes but predates analysis. If the answer to (4) is “yes” with strong justification for changes, the notation TC (Transparent Changes) will be added to the Open Research Badge section, indicating that the analysis plan was altered but the preregistered analyses and rationale for the change are provided.

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**Name: Anthony Barrows**

**Date: 06/05/2023**