# **Supplemental Material**

#### WARNING: YOU ARE ABOUT TO BE NUDGED

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#### **Methods and Analysis**

Table S1Sample Characteristics

|                              | CMU     | NYT     |
|------------------------------|---------|---------|
|                              | (n=542) | (n=216) |
| Male                         | 61%     | 47%     |
| Mean Age                     | 48.74   | 51.81   |
|                              | (15.25) | (14.03) |
| Race                         |         |         |
| Caucasian                    | 89%     | 90%     |
| Black                        | 1%      | 1%      |
| Asian                        | 8%      | 5%      |
| Other Race                   | 2%      | 4%      |
| Religion                     |         |         |
| Non Religious                | 35%     | 52%     |
| Catholic                     | 18%     | 9%      |
| Protestant                   | 22%     | 14%     |
| Jewish                       | 12%     | 9%      |
| Other Religion               | 13%     | 16%     |
| Been in ICU                  | 12%     | 13%     |
| Experiencing Health Problems | 7%      | 10%     |

*Note*. Standard deviations appear in parentheses. CMU = Carnegie Mellon University sample; NYT = *New York Times* sample; ICU = intensive care unit.

The sample characteristics are shown in Table S1. Included in this table, as well as in Figures S1 and S2, are two conditions we ran and did not report in the main body of the article. The two conditions

manipulate the order in which the options are presented (comfort first or prolong first) and do not impose a default. We report them here for sake of completeness, but because our focus is on the effect of defaults, we did not run any analyses using these two conditions.

## Data, Analyses, and Results

Participants in this study showed an overwhelming preference for minimizing discomfort. When the question was posed in general terms, 75% of responses reflected this goal (see Figure S1). By comparison, only 15% of responses reflected a goal of prolonging life. Participants' overall preference for comfort was so fixed that neither default options nor participants' knowledge of them had much impact on their response to the question about their general preference for end-of-life care.



*Figure S1*. The impact of defaults on overall goal for care. The first stage responses include a default (except for the order only conditions); in the second stage, participants answer the same question with no default. Irrespective of condition or default, about 75% of participants preferred the comfort option. Error bars are included to indicate 95% confidence intervals.

Several main findings are apparent from Figure S1 and Tables S2 and S3. First, a comparison between the first-stage responses of those defaulting either to comfort or to prolong in the postinformed conditions provides a simple test of conventional default effects. These can be seen in the left-hand panel of Figure S2 (indicating responses to the first advance directive) comparing the blue and red bars marked "Comfort Postinformed" and "Prolong Postinformed" and in columns 2 and 4 of Table S2. Significance tests of the difference, presented in the second column of Table S3, show that five of the five specific items display significant differences at the .10 level, with several significant at more conservative levels. The difference between comfort and prolong for the average of all five items is significant at the .001 level.



*Figure S2*. The impact of defaults on the average share of choices favoring the comfort or prolong option. In the postinformed conditions, participants are informed between the first and second stages. In the preinformed conditions, they are informed before the first stage. Error bars are included to indicate 95% confidence intervals.

Second, a comparison between the blue and red bars marked "Comfort Preinformed" and "Prolong Preinformed" in the left-hand panel of Figure S2 and between the first and third columns of Table S2 shows that the default was effective in changing first-stage responses, despite the warning about the default. Although all of the changes are affected by the default in the predicted direction, it can be seen in Table S3 that the effect is statistically significant only for a single item (dialysis) and for the average of all five items (both at the .01 level). Thus, there is suggestive evidence that preinforming subjects about the default may have weakened but not eliminated its impact.

#### Table S2

Percentage Choosing Comfort (Top Left of Cells) and Prolong (Bottom Right of Cells) by Stage, Condition, and Item

|                | Stage 1     |              |             |              | Stage 2     |              |             |              |  |
|----------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|--|
| Comfort        | Comfort     | Comfort      | Prolong     | Prolong      | Comfort     | Comfort      | Prolong     | Prolong      |  |
| Prolong        | preinformed | postinformed | preinformed | postinformed | preinformed | postinformed | preinformed | postinformed |  |
| 0 11 1         | 81.6%       | 81.7%        | 80.5%       | 78.2%        | 76.0%       | 76.9%        | 79.5%       | 79.8         |  |
| Overall goal   | 5.6%        | 5.8%         | 12.0%       | 5.6%         | 11.2%       | 7.7%         | 12.9%       | 5.6%         |  |
| Average of 5   | 50.7%       | 46.9%        | 41.2%       | 30.2%        | 53.8%       | 47.3%        | 45.4%       | 36.3%        |  |
| specific items | 26.9%       | 24.2%        | 37.9%       | 41.6%        | 21.6%       | 22.3%        | 32.5%       | 37.1%        |  |
| CPR            | 44.0%       | 41.3%        | 33.1%       | 23.4%        | 45.6%       | 40.4%        | 39.1%       | 25.0%        |  |
|                | 35.2%       | 30.8%        | 47.4%       | 53.2%        | 30.4%       | 30.8%        | 42.9%       | 51.6%        |  |
| ICU            | 40.8%       | 38.5%        | 33.8%       | 21.0%        | 45.6%       | 40.4%        | 34.6%       | 25.8%        |  |
|                | 35.2%       | 30.8%        | 40.6%       | 50.8%        | 30.4%       | 26.0%        | 39.1%       | 47.6%        |  |
| Vantilator     | 59.2%       | 54.8%        | 51.1%       | 37.9%        | 61.6%       | 55.7%        | 55.6%       | 43.5%        |  |
| ventilator     | 19.2%       | 16.3%        | 25.6%       | 29.8%        | 13.6%       | 13.5%        | 21.1%       | 27.4%        |  |
| Dialysis       | 50.4%       | 47.1%        | 36.1%       | 27.4%        | 53.6%       | 47.1%        | 41.4%       | 37.9%        |  |
|                | 26.4%       | 26.9%        | 46.6%       | 56.8%        | 20.8%       | 26.9%        | 36.1%       | 36.3%        |  |
| Fooding tube   | 59.2%       | 52.9%        | 51.9%       | 41.1%        | 62.4%       | 52.9%        | 56.4%       | 49.2%        |  |
| recuing tube   | 18.4%       | 16.3%        | 29.3%       | 27.4%        | 12.8%       | 14.4%        | 23.3%       | 22.6%        |  |

*Note*. CPR = cardiopulmonary resuscitation; ICU = intensive care unit.

The third important comparison is between second-stage responses in the postinformed condition, at which point respondents had been informed about the existence of the defaults. The blue and red bars marked "Comfort Postinformed" and "Prolong Postinformed" in the right-hand panel of Figure 2 and the sixth and eighth columns of Table S2 show the effect of the default when respondents have been informed of the default after making first-stage choices and are then given the opportunity to revise their choices. The fourth column of Table S3 shows that the effect of the default is significant at the .05 level or greater for three of the five specific items, and the combination of the five items is significant at the .001 level. The effect of the default, therefore, persisted even when respondents were informed about the default and given an opportunity to reconsider their previous choices.

#### Table S3

| $\chi^2$ Test       | Sta   | ge 1   | Stage 2                                      |  |  |
|---------------------|---|--|--|--|--|
| Decision            | Preinformed                                   | Postinformed                                 | Preinformed                                  | Postinformed                                 |  |
| Overall goal        | 4.78<br>(p < .10)                             | $\begin{array}{c} 0.60\\ (p=ns) \end{array}$ | 1.99<br>(p = ns)                             | $\begin{array}{c} 0.45\\ (p=ns) \end{array}$ |  |
| 5 items<br>combined | 18.71<br>( $p < .001$ )                       | 46.42<br>(p < .001)                          | 19.45<br>( $p < .001$ )                      | 30.11<br>( <i>p</i> < .001)                  |  |
| CPR                 | $\begin{array}{c} 4.35\\ (p=ns) \end{array}$  | 12.86<br>( $p < .01$ )                       | $\begin{array}{c} 4.45\\ (p=ns) \end{array}$ | 10.67<br>( $p < .01$ )                       |  |
| ICU                 | $\begin{array}{c} 1.40\\ (p=ns) \end{array}$  | 11.55<br>( $p < .01$ )                       | 3.49<br>( <i>p</i> = <i>ns</i> )             | 11.65<br>( $p < .01$ )                       |  |
| Ventilator          | $\begin{array}{c} 2.01 \\ (p=ns) \end{array}$ | 8.11<br>(p < .05)                            | $\begin{array}{c} 2.50\\ (p=ns) \end{array}$ | 7.01<br>(p < .05)                            |  |
| Dialysis            | 11.33<br>(p < .01)                            | 11.94<br>( $p < .01$ )                       | 7.54<br>(p < .05)                            | 2.69 $(p = ns)$                              |  |
| Feeding Tube        | 4.23 $(p = ns)$                               | 4.79<br>( $p < .10$ )                        | 4.88<br>(p < .10)                            | 2.52 $(p = ns)$                              |  |

Results of Chi-Square Tests on the Proportion of Comfort, Prolong, and No-Choice Decisions for Participants Who Have Been Defaulted Into the Comfort or Prolong Condition

*Note*. CPR = cardiopulmonary resuscitation; ICU = intensive care unit.

**Regression analyses.** There were three possible responses for each decision: comfort, prolong, or forgo making a choice (that is, no choice). Because these do not form any natural ordering, we ran a multinomial logistic regression in which the likelihood of choosing prolong or making no choice is compared with that of picking comfort. In the results that follow, each response from an individual was treated as an observation. We corrected for nonindependence among the multiple responses by including random effects at the individual subject level. We also included fixed effects for each of the five items to take into account that the respective options are not equally appealing for all health interventions.

**Standard default effects.** Table S4 presents results from multinomial random effects logistic regressions. The first two columns of coefficients in the table examine the stage 1 decisions of individuals in the postinformed condition and compare the choices made by those defaulted into prolong with the decisions made by those defaulted into comfort. This difference is the standard default effect. From the table, it can be seen that the effect of the comfort default is a decrease of 2 in the log-odds ratio for both prolong and no choice relative to the comfort choice. Individuals defaulted into the comfort option are significantly less likely to choose prolong (p < .01) or no choice (p < .05) relative to the comfort choice.

The second row of the table (labeled *Marginal Effect*) shows the predicted percentage point change in choice of the comfort option resulting from changing the default from prolong to comfort. The number 0.361 indicates that shifting an individual from the prolong to the comfort default increases that individual's probability of choosing the comfort option by 36 percentage points (p < .01). The p value here denotes the significance test for the null hypothesis that shifting them into the comfort default has no impact.

#### Table S4

Multinomial Logit Regression Showing the Change in Likelihood of Selecting the Comfort Option when the Default Changes from Prolong to Comfort

|                 | Stage 1 pc        | ostinformed | Stage 2 po                         | stinformed | Stage 1 preinformed |         |           |
|-----------------|-------------------|-------------|------------------------------------|------------|---------------------|---------|-----------|
|                 | Prolong No choice |             | Prolong No choice Prolong No choic |            | No choice           | Prolong | No choice |
| Comfort default | -2.032**          | -2.050*     | -1.100***                          | 0.333      | -1.553**            | -0.389  |           |
|                 | (0.708)           | (0.922)     | (0.317)                            | (0.520)    | (0.488)             | (0.371) |           |
| Marginal effect | 0.361**           |             | 0.17                               | 75**       | 0.329**             |         |           |
| (comfort=0)     | (0.112)           |             | (0.068)                            |            | (0.111)             |         |           |

*Note*. The dependent variable is the combined answers to all treatment decisions. Included are controls for population (Carnegie Mellon University and *New York Times*), gender, age, age squared, ethnicity, and religiosity. The regression also includes fixed effects for each of the five questions and random effects at the individual level.

\*p < .05. \*\*p < .01. \*\*\*p < .001.

**Postinformed.** After being informed of the defaults, a substantial fraction of respondents (15.4% for those defaulted to comfort and 20.1% of those defaulted to prolong) picked a different number of comfort choices. Among those defaulted to comfort, however, the number changing in each direction approximately canceled out, so there were no significant net changes. In contrast, those defaulted to prolong showed a robust (consistent across all five items) propensity to shift toward the comfort option, consistent with a reactance effect. The change was greatest for dialysis (with a net change of 11% toward the comfort option) and smallest for cardiopulmonary resuscitation (with only 2% shifting toward the comfort option).

To examine the overall effect of defaulting choices for people, informing them that certain answers have been set as defaults, and then letting them choose again (this time with no defaults), we ran regression analyses comparing the second phase of the comfort and prolong postawareness default conditions (see the middle columns of Table S4). The coefficient on comfort in the prolong column is again significantly negative (p < .001), showing that participants in the comfort condition are significantly less likely to choose the prolong option. Despite postinforming respondents of the defaults and allowing them to revise their responses, we found that their second responses were still affected by the original default, although the effect was quantitatively smaller (17.5 percentage points; see the second row of Table S4) than reported for the first round. Their likelihood of choosing to let an agent make the decision for them relative to choosing comfort is not significantly different.

**Preinformed.** The last two columns of Table S4 report the effect of defaults in the preinformed treatment. The likelihood of choosing prolong compared with comfort is significantly lower for those in the comfort default (p < .01). The magnitude of the log-odds change is smaller than in the postinformed condition, and the shift from not making a choice into comfort is no longer significant. However, the marginal effects in the bottom row of Table S4 show that the comfort default increases the probability of choosing the comfort option by 33 percentage points, which is about the same as in the first-stage responses to the postinform conditions, in which respondents had not been alerted to the defaults. According to this analysis, preinforming people of defaults had, at most, a small impact on their effectiveness.

As a more direct test of whether preinforming respondents affected the impact of the defaults, we pooled both default conditions (comfort and prolong) and defined a variable that was equal to 1 if the respondent, in the first phase, chose an option other than the one to which they had been defaulted. We then regressed this variable through a series of several (related) specifications: initially using only a binary indicator of whether they had been preinformed, then adding all control variables, and finally including a binary indicator for the comfort default, plus the interaction term between comfort and preinformed. In none of these specifications did either the preinform variable or the interaction term approach significance, suggesting that preinforming respondents about the default does not diminish their tendency to stick with the default.

**Analysis of individual items.** Table S5 presents multinomial logistic regressions for each individual option. As before, we compare the changes in log-odds of choosing the prolong and no-choice options relative to the comfort baseline. Each regression includes terms for the comfort default condition (estimating the effect of the default for someone who is postinformed), the preinformed condition (estimating the effect of preinforming someone in the prolong condition), and their interaction (allowing us to calculate the effect of the default for someone who is preinformed).

From the table, it can be seen that the comfort default for those who have not been preinformed significantly reduces the likelihood of choosing the prolong option, relative to the comfort option, in three of the five items (p < .01 for CPR and ICU and p < .05 for ventilator use). The fourth row of the table shows that being defaulted into comfort increases the overall probability of choosing comfort in the CPR and ICU decisions by approximately 15 percentage points. The marginal effects for the remaining choices are substantially smaller and nonsignificant. The default does not affect significantly the likelihood of making no choice, compared with picking the comfort option, on any of the individual items.

#### Table S5

Multinomial Logistic Regression on the Choice when Filling out the Advance Directive for the Second Time (with No Default)

|                                      | CPR         |             | ICU         |             | Ventilator |               | Dialysis |               | Feeding tube |               |
|--------------------------------------|-------------|-------------|-------------|-------------|------------|---------------|----------|---------------|--------------|---------------|
|                                      | Prolong     | No choice   | Prolong     | No choice   | Prolong    | No choice     | Prolong  | No choice     | Prolong      | No choice     |
| Comfort                              | -1.084**    | -0.339      | -1.111**    | -0.260      | -0.870*    | -0.166        | -0.431   | -0.209        | -0.394       | 0.146         |
|                                      | (0.351)     | (0.361)     | (0.361)     | (0.348)     | (0.398)    | (0.317)       | (0.333)  | (0.340)       | (0.400)      | (0.314)       |
| Preinformed                          | -0.675*     | -0.803*     | -0.455      | -0.401      | -0.354     | -0.519        | -0.015   | -0.275        | 0.058        | -0.494        |
|                                      | (0.322)     | (0.367)     | (0.329)     | (0.347)     | (0.338)    | (0.313)       | (0.306)  | (0.331)       | (0.342)      | (0.319)       |
| Preinformed ×                        | 0.597       | 0.484       | 0.546       | -0.085      | 0.319      | 0.179         | -0.363   | 0.101         | -0.312       | 0.009         |
| Comfort                              | (0.466)     | (0.494)     | (0.478)     | (0.476)     | (0.538)    | (0.441)       | (0.459)  | (0.465)       | (0.541)      | (0.444)       |
| Marginal effect                      | 0.1         | 46*         | 0.1         | .63*        | 0          | .096          | 0        | .075          | 0.           | .007          |
| (comfort = 1)                        | (0.0        | 060)        | (0.0        | 060)        | (0         | .065)         | (0       | .065)         | (0.          | .065)         |
| Marginal effect<br>(preinformed = 0) | 0.0<br>(0.0 | 044<br>063) | 0.0<br>(0.0 | 049<br>063) | 0<br>(0    | .056<br>.065) | 0.(0.    | .065<br>.065) | 0.(0.        | .095<br>.064) |

*Note.* The baseline is the comfort choice. The marginal effects show the change in likelihood of selecting the comfort option when the default changes from prolong to comfort for someone who is at the mean of our sample and not preinformed, as well as the effect of preinforming someone who is at the mean of the sample and defaulted into the comfort option. Included are controls for population (Carnegie Mellon University and *New York Times*), gender, age, age squared, ethnicity, and religiosity. CPR = cardiopulmonary resuscitation; ICU = intensive care unit.

\*p < .05. \*\*p < .01. \*\*\*p < .001.

The second and fifth rows of Table S5 address the question we are most interested in: whether preinforming someone of the comfort default decreases their probability of choosing the comfort option. If so, preinforming could decrease the intervention's effectiveness. Preinforming subjects in the prolong default does decrease the number of prolong and no-choice decisions but does not affect the strength of the default effect in the comfort condition (the sum of the preinformed coefficient and the interaction coefficient).

Advance directive preferences—Compulsory rules or mere guidelines? Finally, participants indicated, after the second phase, whether their agent "must follow these instructions" (binding) or whether these instructions should be treated "only [as] guidelines" (nonbinding). We examined the association between the second-phase responses and the binding/nonbinding designation, as shown in Figure S3. Respondents who considered the directive to be binding were more likely to choose the comfort option, and separate analyses revealed that the transpose is also true: Decisions favoring comfort were more likely to be designated as binding than were decisions favoring prolongation of life.



*Figure S3*. Share of decisions by level of commitment. The figure shows the proportion of comfort and prolong choices for people who wanted their decisions to be binding and not binding on their health care provider, respectively. Error bars are included to indicate 95% confidence intervals.

# Materials

### [Online Consent]

Thank you for choosing to participate in this study about Advance Directives. The purpose of an Advance Directive is to give individuals the ability to make decisions about their medical treatment in case, for health reasons, they become unable to communicate their wishes.

As part of this research, momentarily, we will ask you to complete a brief version of an Advance Directive. Once you complete it, we will ask you additional questions, including some demographic information and some information about your views on health issues.

### [The following purple text is displayed only in the preinformed condition]

# PLEASE READ THE FOLLOWING VERY CAREFULLY; IT IS CRITICAL FOR THE STUDY.

The specific focus of this research is on 'defaults' – decisions that go into effect if people don't take actions to do something different. Participants in this research project have been divided into two experimental groups.

If you have been assigned to one group, the Advance Directive you complete will have answers to questions checked that will direct health care providers to help relieve pain and suffering even if it means not living as long. If you want something different, you will be asked to check one of the other options and place your initials beside the different option you select.

If you have been assigned to the other group, the Advance Directive you complete will have answers to questions checked that will direct health care providers to prolong your life as much as possible, even if it means you may experience greater pain and suffering. If you want something different, you will be asked to check one of the other options and place your initials beside the different option you select.

Now, please continue on to the Advance Directive and complete it in a fashion that expresses your wishes for treatment if you lack the capacity to understand, make, or communicate desired treatment decisions.

# PLEASE COMPLETE THE FOLLOWING AS IF YOU WERE COMPLETING A REAL ADVANCE DIRECTIVE THAT WOULD BECOME PART OF YOUR MEDICAL RECORD

The following health care treatment instructions exercise my right to make my own health care decisions. These instructions are intended to provide clear and convincing evidence of my wishes to be followed when I lack the capacity to understand, make, or communicate my treatment decisions. This section of the document will take effect when and only when I lack the ability to understand, make, or communicate a choice regarding a health or personal care decision as verified by my attending physician.

If I have a condition where I have no reasonable expectation of recovery or chance of regaining a meaningful quality of life, my instructions are as follows:

### [The following red text is displayed only in the comfort condition]

#### Q8 Overall Goal of Care

• I want my health care providers and agent to pursue treatments that help relieve my pain and suffering, even if that means that I might not live as long.

OR

# (If you would like to select either of the two other responses, please place your initials in the box below)

- I want my health care providers and agent to pursue treatments that help me to live as long as possible, even if that means I might have more pain or suffering.
- I do not want to specify one of the above goals. My health care providers and agent may direct the overall goals of my care.

### [The following blue text is displayed only in the prolong condition]

#### Q8 Overall Goal of Care

• I want my health care providers and agent to pursue treatments that help me to live as long as possible, even if that means I might have more pain or suffering.

### OR

# (If you would like to select either of the two other responses, please place your initials in the box below)

- I want my health care providers and agent to pursue treatments that help relieve my pain and suffering, even if that means I might not live as long.
- I do not want to specify one of the above goals. My health care providers and agent may direct the overall goals of my care.

Q9 In addition, I want my health care providers and agent to focus on the following goals (optional):

[Q11–Q15 are shown as they are presented in the comfort condition. The ordering and default is adjusted for the prolong condition as in Q8.]

Now, we would like to ask you about some specific procedures.

Q11 Cardiopulmonary resuscitation (CPR) (manual chest compressions performed to restore blood circulation and breathing)

• I do not want cardiopulmonary resuscitation (CPR) to be performed if my heart stops beating, even if performing CPR might prolong my life.

OR

(If you would like to select either of the two other responses, please place your initials in the box below)

- I request cardiopulmonary resuscitation (CPR) if my heart stops beating, even if performing CPR might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about cardiopulmonary resuscitation (CPR) for me.

Q12 Intensive care unit (ICU) admission (hospital unit that provides specialized equipment, services, and monitoring for critically ill patients, such as higher staffing-to-patient ratios and ventilator support)

• I do not want to be admitted to the intensive care unit (ICU), even if it might prolong my life.

OR

(If you would like to select either of the two other responses, please place your initials in the box below)

- I want to be admitted to the intensive care unit (ICU) to prolong my life, even if it might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about admission to the ICU for me.

Q13 Mechanical ventilator use (a general term to describe machines that assist spontaneous breathing, often using either a mask or a breathing tube)

• I do not want a mechanical ventilator to be used, even if it might prolong my life.

# (If you would like to select either of the two other responses, please place your initials in the box below)

- I request the use of a mechanical ventilator to prolong my life, even if it might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about the use of a mechanical ventilator for me.

Q14 Dialysis (kidney filtration by machine)

• I do not want dialysis to be performed on me, even if it might prolong my life.

OR

(If you would like to select either of the two other responses, please place your initials in the box below)

- I request dialysis to prolong my life, even if it might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about the use of dialysis for me.

Q15 Feeding tube insertion (devices used to provide nutrition to patients who cannot swallow, inserted either through the nose and esophagus into the stomach or directly into the stomach through the belly)

• I do not want to have a feeding tube inserted, even if it might prolong my life.

OR

(If you would like to select either of the two other responses, please place your initials in the box below)

• I request feeding tube insertion to prolong my life, even if it might increase my pain or suffering.

• I do not wish to specify one of these options. My health care providers and agent may make any decisions about insertion of a feeding tube for me.

### [The following purple text is displayed only in the preinformed condition]

In past surveys, some of our respondents have wanted to revise their answers after seeing the full set of questions. Starting on the next page, we are going to present the same Advance Directive and ask you to complete the individual items a second time.

This will allow you to either confirm or change your responses now that you know all of the treatments that are included. Please do not leave any of the items blank.

Just as you did before, please complete these items so that they express your wishes for treatment in situations where you would lack the capacity to understand, make, or communicate your treatment decisions directly.

#### [The following green text is displayed only in the postinformed condition]

### PLEASE READ THE FOLLOWING VERY CAREFULLY; IT IS CRITICAL FOR THE STUDY.

The specific focus of this research is on 'defaults' – decisions that go into effect if people don't take actions to do something different. Participants in this research project have been divided into two experimental groups.

If you have been assigned to one group, the Advance Directive you complete will have answers to questions checked that will direct health care providers to help relieve pain and suffering even if it means not living as long. If you want something different, you will be asked to check one of the other options and place your initials beside the different option you select.

If you have been assigned to the other group, the Advance Directive you complete will have answers to questions checked that will direct health care providers to prolong your life as much as possible, even if it means you may experience greater pain and suffering. If you want something different, you will be asked to check one of the other options and place your initials beside the different option you select.

Now, please continue on to the Advance Directive and complete it in a fashion that expresses your wishes for treatment if you lack the capacity to understand, make, or communicate desired treatment decisions.

# If I have a condition where I have no reasonable expectation of recovery or chance of regaining a meaningful quality of life, my instructions are as follows:

#### [The following red text is displayed only in the comfort condition]

#### Q18 Overall Goal of Care

- I want my health care providers and agent to pursue treatments that help relieve my pain and suffering, even if that means that I might not live as long.
- I want my health care providers and agent to pursue treatments that help me to live as long as possible, even if that means I might have more pain or suffering.
- I do not want to specify one of the above goals. My health care providers and agent may direct the overall goals of my care.

#### [The following blue text is displayed only in the prolong condition]

#### Q18 Overall Goal of Care

- I want my health care providers and agent to pursue treatments that help me to live as long as possible, even if that means I might have more pain or suffering.
- I want my health care providers and agent to pursue treatments that help relieve my pain and suffering, even if that means I might not live as long.
- I do not want to specify one of the above goals. My health care providers and agent may direct the overall goals of my care.

Q19 In addition, I want my health care providers and agent to focus on the following goals (optional):

# [Q21–Q25 are shown as they are presented in the comfort condition. The ordering is adjusted for the prolong condition as in Q18.]

Now we would like to ask you about the specific procedures.

Q21 Cardiopulmonary resuscitation (CPR) (manual chest compressions performed to restore blood circulation and breathing)

- I do not want cardiopulmonary resuscitation (CPR) to be performed if my heart stops beating, even if performing CPR might prolong my life.
- I request cardiopulmonary resuscitation (CPR) if my heart stops beating, even if performing CPR might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about cardiopulmonary resuscitation (CPR) for me.

Q22 Intensive care unit (ICU) admission (hospital unit that provides specialized equipment, services, and monitoring for critically ill patients, such as higher staffing-to-patient ratios and ventilator support)

- I do not want to be admitted to the intensive care unit (ICU), even if it might prolong my life.
- I want to be admitted to the intensive care unit (ICU) to prolong my life, even if it might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about admission to the ICU for me.

Q23 Mechanical ventilator use (a general term to describe machines that assist spontaneous breathing, often using either a mask or a breathing tube)

- I do not want a mechanical ventilator to be used, even if it might prolong my life.
- I request the use of a mechanical ventilator to prolong my life, even if it might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about the use of a mechanical ventilator for me.

## Q24 Dialysis (kidney filtration by machine)

- I do not want dialysis to be performed on me, even if it might prolong my life.
- I request dialysis to prolong my life, even if it might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about the use of dialysis for me.

Q25 Feeding tube insertion (devices used to provide nutrition to patients who cannot swallow, inserted either through the nose and esophagus into the stomach or directly into the stomach through the belly)

- **O** I do not want to have a feeding tube inserted, even if it might prolong my life.
- I request feeding tube insertion to prolong my life, even if it might increase my pain or suffering.
- I do not wish to specify one of these options. My health care providers and agent may make any decisions about insertion of a feeding tube for me.

Q26 What is your agent's duty?

- My agent must follow these instructions.
- These instructions are only guidelines. My agent shall have final say, and may override any of my instructions unless I specifically indicate exceptions.

Q27 Gender

- O Male
- **O** Female

Q28 Age \_\_\_\_\_

### Q29 Race

- O American Indian/Alaska Native
- O Asian
- **O** Native Hawaiian or Other Pacific Islander
- **O** Black or African American
- **O** White
- **O** Other\_\_\_\_\_

## Q30 Ethnicity

- **O** Hispanic
- **O** Non-Hispanic

Q31 What is your religious affiliation?

- O None
- **O** Roman Catholic
- Protestant
- O Jewish
- O Muslim
- **O** Buddhist
- O Hindu
- **O** Other \_\_\_\_\_

Q32 How important is religion in your life?

- **O** Very important
- **O** Somewhat important
- **O** Not important at all

Q33 Have you ever experienced the death of a loved one, either a relative or close friend?

O Yes

O No

**O** If No Is Selected, Then Skip To Q37

Q34 Of these, how many of them died while in the intensive care unit (ICU)?

Q35 How familiar are you with the care they received while in the ICU?

- **O** Very familiar
- Somewhat familiar
- **O** Not familiar at all
- **O** Not applicable

Q36 In general, how would you describe the care delivered in the ICU?

- Very caring
- Somewhat caring
- O Not very caring
- **O** Not applicable

Q37 Have you ever been a patient in a hospital intensive care unit (ICU)?

- O Yes
- O No

Q38 Are you currently experiencing any potentially serious health problems?

- O Yes
- O No

Q39 If yes, describe \_\_\_\_\_

Q40 On a scale of 0 to 100, where 0 is the worst health condition you can imagine and 100 is the best that you can imagine, what number would you assign to your current health? (please answer with a numeric value [0, 100])

Q41 Have you documented your own preferences for end-of-life care in any way? Please indicate if you have any of the following (check all that apply).

- □ An advance directive or living will
- □ A durable power of attorney
- □ An organ donor registration card
- □ Other \_\_\_\_\_
- □ I have not documented my end-of-life preferences

Q42 Have you made decisions for another person during a critical illness?

- O Yes
- O No

• Answer If Q42 Yes Is Selected Q43 If yes, please describe

• Answer If Q42 Yes Is Selected Q44 Did your loved one survive that experience?

O Yes

O No

• Answer If Q44 Yes Is Selected Q45 If yes, please describe

O Answer If Q44 Yes Is Selected

Q46 What is your relationship to that person?

- **O** Spouse or significant other
- I am their child
- **O** I am their parent
- Other

• Answer If Q44 No Is Selected Q47 What was your relationship to that person?

- Spouse or significant other
- **O** I was their child
- **O** I was their parent
- Other

Q49 Today in the United States, the average person lives almost 78 years, but a particular person's life span will be affected by many different things, such current health, lifestyle, family history, and environment. In your opinion, considering your own set of circumstances, to what age do you think you will live?

Q50 If you would like to receive a summary of the results of this study when it is completed, please enter your email in the space provided. If you would prefer that your email cannot be connected with your responses, you can also email us at the address from which you received the request to participate.