# Additional File 1, Q-set Statements

### A. CONSEQENTIALISM

#### 1. Patient

2. Prescribing placebo by a physician is acceptable if there is large benefit to the patient. Acceptable if benefit to patient large

40. Prescribing placebo by a physician is acceptable if there is moderate benefit to the patient. Acceptable with moderate benefit to patient

9. Prescribing placebo by a physician is acceptable if there is small benefit to the patient. Acceptable with small benefit to patient

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31. Prescribing placebo by a physician is acceptable if there is no harm to the patient. Acceptable if no harm to patient

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#### 2. Family

42. Prescribing placebo by a physician to a patient is acceptable if there is large benefit to the patient's caring relative.

Acceptable with large benefit to caring relative

34. Prescribing placebo by a physician to a patient is acceptable if there is moderate benefit to the patient's caring relative.

# Acceptable with moderate benefit to caring relative

30. Prescribing placebo by a physician to a patient is acceptable if there is small benefit to the patient's caring relative.

Acceptable with small benefit to caring relative

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# 3. Other patients

16. Prescribing placebo by a physician to a patient is acceptable if there is large benefit to other patients.

#### Acceptable with large benefit to other patients

1. Prescribing placebo by a physician to a patient is acceptable if there is moderate benefit to other patients.

#### Acceptable with moderate benefit to other patients

7. Prescribing placebo by a physician to a patient is acceptable if there is small benefit to other patients.

#### Acceptable with small benefit to other patients

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3. Prescribing placebo by a physician to a patient is acceptable if there is small harm to other patients.

### Acceptable if harm to other patients small

20. Prescribing placebo by a physician to a patient is acceptable if there is moderate harm to other patients.

#### Acceptable with moderate harm to other patients

36. Prescribing placebo by a physician to a patient is acceptable if there is large harm to other patients.

# Acceptable with large harm to other patients

# **B. JUSTICE**

#### 1. Distributive

33. Prescribing placebo is acceptable if it is available to all similar patients.

#### Acceptable if available to similar patients

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#### 2. Cost bearing

13. Prescribing placebo is acceptable if the State covers the cost and it is informed the prescription is a placebo.

#### Acceptable if informed State covers cost

28. Prescribing placebo is acceptable if an insurance company covers the cost and it is informed the prescription is a placebo.

Acceptable if informed insurance covers cost

38. Prescribing placebo is acceptable if the physician covers the cost. Acceptable if physician covers cost

12. Prescribing placebo is acceptable if the patient covers the cost. Acceptable if patient covers cost

18. Prescribing placebo is acceptable if the State covers the cost and it is not informed the prescription is a placebo.

#### Acceptable if uninformed State covers cost

41. Prescribing placebo is acceptable if an insurance company covers the cost and it is not informed the prescription is a placebo.

Acceptable if uninformed insurance covers cost.

# C. RIGHTS

# 1. Informed consent/deception

10. Describing placebo by a physician as a drug that may help is acceptable. Acceptable to describe as drug that may help

14. Describing placebo by a physician as a drug that may help is acceptable if the physician will tell the patient all the facts later.

# Acceptable to describe as drug that may help with delayed disclosure

8. Giving no description for the placebo is acceptable if the physician will tell the patient all the facts later.

# Acceptable with delayed disclosure without early description

19. Describing placebo by a physician as an inactive drug (sugar pill) is acceptable. Acceptable to describe as inactive drug

17. Describing placebo by a physician as a pharmacologically active drug is acceptable if the physician will tell the patient all the facts later.

Acceptable to describe as active drug with delayed disclosure

23. Describing placebo by a physician as a pharmacologically active drug is acceptable. Acceptable to describe as active drug

35. Giving no description for the placebo by the physician is acceptable. **Giving no description is acceptable** 

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# 2. Vulnerability

27. Prescribing placebo by a physician is acceptable if the patient is educated. **Acceptable with educated patient** 

4. Prescribing placebo by a physician is acceptable if the patient is an adult. Acceptable with adult patient

37. Prescribing placebo by a physician is acceptable if the patient is not economically disadvantaged.

# Acceptable with not economically disadvantaged patient

11. Prescribing placebo by a physician is acceptable if the patient is economically disadvantaged. Acceptable with economically disadvantaged patient

22. Prescribing placebo by a physician is acceptable if the patient is not educated. Acceptable with uneducated patient

24. Prescribing placebo by a physician is acceptable if the patient is a child. **Acceptable with child patient** 

# D. VIRTUE

#### 1. Motives

26. Prescribing placebo by a physician with the intent to benefit the patient is acceptable. **Acceptable with physician intent to benefit patient** 

25. Prescribing placebo by a physician with the intent to please the patient is acceptable. Acceptable with physician intent to please patient

21. Prescribing placebo by a physician with the intent to benefit other patients is acceptable. Acceptable with physician intent to benefit other patients

29. Prescribing placebo by a physician with the intent to benefit the patient's caring relative is acceptable.

#### Acceptable with physician intent to benefit patient caring relative

5. Prescribing placebo by a physician with the intent to prove that the patient is wrong is acceptable.

# Acceptable with physician intent to prove patient wrong

6. Prescribing placebo by a physician with the intent to get rid of an insisting patient is acceptable.

# Acceptable with physician intent to get rid of patient

39. Prescribing placebo by a physician with the intent to please the patient's caring relative is acceptable.

#### Acceptable with physician intent to please patient caring relative

32. Prescribing placebo by a physician with the intent to get rid of the patient's insisting relative is acceptable.

# Acceptable with physician intent to get rid of patient insisting relative

15. Prescribing placebo by a physician with the intent to benefit the physician is acceptable. Acceptable with physician self-benefit intent

#### Additional File 2, Instructions and Sorting Sheet

#### **Instructions to sorters**

Please read the following instructions carefully before you start your sort. It is very important that the sorting procedure be followed in all its details.

We ask you to indicate the degree of your agreement or disagreement with each of the statements in the deck of cards that was given to you. The 42 cards in the deck contain statements about issues related to the ethical acceptability of placebo treatment. We ask you to rank-order these statements according to your own point of view, using the attached Q-sorting sheet. The numbers on the cards (1 to 42) have been assigned randomly to the cards. They are used only to help you indicate your response.

For the purpose of this study, we define placebos as interventions that do not have ingredients known to be pharmacologically active for the condition being treated. These include pure and the so-called impure placebos. Pure placebos are interventions, such as sugar pills, that have no pharmacologically active ingredients. Impure placebos are interventions, such as prescribing antibiotics for viral infections, that have pharmacologically active ingredients for certain conditions but are prescribed for unrelated conditions.

Placebo treatment has been shown in numerous studies to be active and produce a specific placebo effect. It works through modulating patient's expectations, consciously and subconsciously. Patients experience placebo effect because they expect that they will benefit from the treatment. We exclude from the placebo effect, changes in patient status that would occur regardless of any intervention (such as the spontaneous cure of influenza) as well as changes due other aspects of the doctor-patient relationship.

We stipulate that the effect of placebo would be strongest if the patient believed it is pharmacologically active. We further stipulate that placebos are prescribed by the physician for conditions that have no or inadequate therapy. Thus, we are interested in studying the ethical acceptance of placebo treatment in the absence of, or in addition to, standard therapy rather than instead of it.

Please note that we are interested in the ethical acceptability of prescribing placebos rather than what the physician should do (the morally best course of action) or what you prefer for yourself or your family/friend. Just to be clear, we are interested in your own point of view. Therefore, there is no right or wrong answer. We want to know what you think is most agreeable and what you think is most disagreeable, based on your own values and beliefs. We are interested in your personal view, your view as an individual rather than your view as part of an organization, profession, or society. Laws and rules sometimes justifiably prohibit conducts that is morally justifiable in individual cases. We are interested in your opinion at the level of general policy rather than the level of individual acts.

Your response will be treated as highly confidential and will be used only for the purpose of this study. It will not be linked to your medical record or used to inform your medical management.

Read through all the statements carefully to get a general impression of the range of issues at hand. You may notice that some of them are in agreement with your view, to a greater or lesser degree. Other statements may be in disagreement with your view, also to a greater or lesser degree. There are yet other statements that you may feel "neutral" or ambivalent about. These possibly seem irrelevant to your own values and preferences.

Your task is to indicate the degree of agreement or disagreement with each statement. The statements should be sorted in an order of agreeability from your personal point of view; those most agreeable should be scored the highest, while those most disagreeable should be scored the lowest.

First, divide the statements into three piles, most agreeable, most disagreeable, and "others". Then look through the most agreeable pile and pick out the three statements that are most agreeable to you. Place them in the three boxes under number "9" in the Q-sort grid that is given to you. It does not matter which one goes on top or in the middle. Now, look through the same pile again and pick out the four statements that you consider most agreeable to you (excluding from consideration those statements you have already put under number "9"). Place them in the four boxes under number "8" in the Q-sort grid. Now of those statements that remain in the most agreeable pile, pick out five statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements that you consider most agreeable to you (excluding from consideration those statements you have already put under number "9" and "8"). Place them in the five boxes under number "7" in the Q-sort grid.

Now work from the opposite end toward the middle. Of those statements in the most disagreeable pile, pick out the three statements that you consider most disagreeable to you. Place them in the three boxes under number "1" in the Q-sort grid. Now look through the same pile again and pick out the four statements that you consider most disagreeable to you (excluding from consideration those statements that you have already put under number "1"). Place them in the four boxes under number "2" in the Q-sort grid. Now of those statements that remain in the most disagreeable pile, choose the five statements that you consider most disagreeable to you. Place them in the five boxes under number "2" in the Q-sort grid. Now of those statements that remain in the most disagreeable pile, choose the five statements that you consider most disagreeable to you. Place them in the five boxes under number "3" in the Q-sort grid.

Now you have to sort out the remaining 18 statements in the "others" pile. Pick up the 6 statements that you consider agreeable to you. Place them in the six boxes under number "6" in the Q-sort grid. Pick up the 6 statements that you consider disagreeable to you. Place them in the six boxes under number "4" in the Q-sort grid. Pick up the 6 statements that are left in the pile, place them in the six boxes under number "5" in the Q-sort grid.

You may have difficulty placing the required number of statements into each of the 9 categories. For example, if 6 statements are required for a category, you may find that you have too many or too few. In either event, finish with the required number of statements, either by eliminating those that can most sensibly be moved out or by moving in those statements that are most relevant. You may feel that some of your placements are forced. Your task may be admittedly an awkward one, but try to work through it anyway. Before finalizing your Q-sort, make sure your opinion is reflected on the Q-sort grid in front of you. Feel free to rearrange any/all statements, so that when you are done, the positions of the statements relative to each other reflect how you feel, as closely as it can be. When you are done, please write down the number of each card in the boxes of the Q-sorting sheet that correspond to the boxes of the Q-sort grid. We will collect your Q-sorting sheet to analyze it. After writing the numbers of all the cards in the corresponding boxes of the Q-sorting sheet, please explain/give us your comments why the three statements you have placed under number "9" are the most agreeable to you (please use the attached sheet). This will help us understand your opinion.

We would like to emphasize that the worth of this research is heavily dependent on how well and conscientiously participating people perform their tasks. Sorting the statements as described above is perhaps tedious. But when honestly done, the results would be very useful. On the other hand, analysis of statements that have been haphazardly positioned or positioned without due considerations would lead to wrong conclusions. Therefore, we would like to request that you return the material to the study coordinator without your response, if for any reason you feel that you cannot, or prefer not to, perform the task in a meaningful manner.

Thank you for your cooperation.

# Sorting sheet

# Strongly disagree

Strongly agree

1	2	3	4	5	6	7	8	9

Please explain/comment why the three statements you have placed below number "9" are most agreeable to you.

Card #:			
Card #:	 	 	 
Card #:			

Please explain/comment why the three statements you have placed below number "1" are most disagreeable to you.

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Card #:\_\_\_\_\_

Card #:\_\_\_\_\_

Card #:\_\_\_\_\_