# Consensus Survey - Round 2



I-CoCO

Cardiff University led contribution to the IPDAS Collaboration

A Cardiff University led contribution to the IPDAS Collaboration

# **Voting Document**

Thank you for taking part in the 1st round of voting. The purpose of the 2nd round of voting is to reach consensus on the core criteria that decision support interventions should meet. It is very important that voters from the 1st round of voting also participate in the 2nd round of voting to ensure that the results are valid, and we would be very grateful of your participation in this round.

Results from the 1st round have been summarised for you to review. Please consider these results when you vote in the 2nd round.

### **Pre-voting instructions**

- 1. Please plan to take approximately 30 minutes to complete the survey.
- 2. The 2nd round survey follows a similar format to the 1st round survey. In addition, you you will be asked to consider the 1<sup>st</sup> round voting results.
- 3. If you are unfamiliar with any of the terms, please refer to the Glossary, which can be found at the end of this survey.

If you have any questions or are having difficulty opening the documents, please contact the research team at <a href="mailto:ipdas@cardiff.ac.uk">ipdas@cardiff.ac.uk</a>

Documents can also be downloaded from the Consensus Process Website:

www.decisionlaboratory.com/i-coco-participant.php

#### **Privacy Statement**

The information collected during this survey will remain confidential, and will only be made available to the research team. Your name will not appear on any publications or be associated with the data you provide. Contact information provided will only be used for the purpose of contacting you during the survey process. Any personal information entered will only be viewed by the research team, and will not be passed on to any third parties.

## **Voting instructions**

- 1. For each dimension, read the 1st round voting results summary.
- 2. For each item, consider the mean (average) score obtained in the 1st round.
- 3. Considering the mean score, please assess again whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

- 1 = minimal impact on risk of harmful bias
- 5 = definite risk of harmful bias

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A score of 5 would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

**NOTE:** Please rate on the basis of risk of harmful bias, and **not** how feasible it is to implement.

# **Dimension 1 - Information**

# Providing information about options in sufficient detail for making a specific decision

#### What is this dimension?

This dimension has 8 items. The decision to be made and the options available to test or treat the health problem are expected to be described. This may include: description of the condition; what the procedure involves; possible benefits and advantages; and possible harms, side effects, or disadvantages. The harms and benefits of each option should be presented with equal detail and a comparison between options should be made possible. It may include the benefits and harms of not being tested or treated.

## How might this affect the quality of the decision?

In theory, patient decision support interventions may lead to poor decisions if the facts given are incomplete or superficial. For ethical and legal reasons, patients have the right to get full and accurate information before giving their consent to a medical test or treatment. For patients actively involved in choosing options, more detailed information about options may be needed.

# Dimension 1 - Information Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A score of 5 would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

#### **NEW - 1st Round Voting Results**

The voters' responses to each item are displayed in 2 ways:

- Percentages (%) are shown in red above the 1-5 rating scale. These are the percentage of the 101 Voters who assigned this score to the item in round 1
- The mean (average) scores are shown in the yellow box to the left of the rating scale

|    |  |      | requir |                        | of the it<br>, there | em, or it<br>would be         |                     |  |
|----|--|------|--------|------------------------|----------------------|-------------------------------|---------------------|--|
|    | The decision support intervention describes the                      | Mean | 2      | 4                      | 11                   | 16                            | 67                  |  |
| 1  | health condition or problem (treatment,                              | 4.43 | 1      | 2                      | 3                    | 4                             | 5                   |  |
| 1. | procedure or investigation) for which the index decision is required |      |        | al impact<br>harmful b |                      | Definite risk of harmful bias |                     |  |
|    |  | Mean | 5      | 1                      | 6                    | 29                            | 59                  |  |
| ,  | The decision support intervention explicitly                         | 4 27 | 1      | 2                      | 3                    | 4                             | 5                   |  |
| 2. | states the decision that needs to be considered (index decision)     | 4.37 |        | al impact<br>harmful b |                      | Definite<br>harm              | risk of<br>ful bias |  |
|    |  | Mean | 0      | 1                      | 1                    | 10                            | 88                  |  |
| ,  | The decision support intervention describes the                      | 4 OF | 1      | 2                      | 3                    | 4                             | 5                   |  |
| 3. | options available for the index decision                             | 4.85 |        | al impact<br>harmful b |                      | Definite<br>harm              | risk of<br>ful bias |  |
|    | The decision support intervention describes the                      | Mean | 1      | 1                      | 12                   | 31                            | 55                  |  |
|    | rationale for the decision and the natural course                    | 4.20 | 1      | 2                      | 3                    | 4                             | 5                   |  |
| 4. | of the health condition or problem, if no action is taken            | 4.39 |        | al impact<br>harmful b |                      | Definite<br>harm              | risk of<br>ful bias |  |

|    |  | Mean | 0 | 1                        | 5  | 24                             | 70                  |  |
|----|--|------|---|--------------------------|----|--------------------------------|---------------------|--|
| 5. | The decision support intervention describes the positive features (benefits or advantages) of                              | 4.72 | 1 | 2                        | 3  | 4                              | 5                   |  |
| J. | each option  | 4.63 |   | al impact of harmful b   |    | Definite risk<br>harmful bi    |                     |  |
|    |  | Mean | 0 | 0                        | 3  | 20                             | 77                  |  |
| _  | The decision support intervention describes the negative features (harms, side effects, or                                 | 4 74 | 1 | 2                        | 3  | 4                              | 5                   |  |
| 6. | disadvantages) of each option  | 4.74 |   | al impact of harmful b   |    | Definite risk o<br>harmful bia |                     |  |
|    | The decision support intervention makes it possible to compare the positive and negative features of the available options | Mean | 2 | 4                        | 24 | 28                             | 43                  |  |
| _  |  | 4 OF | 1 | 2                        | 3  | 4                              | 5                   |  |
| 7. |  | 4.05 |   | al impact (<br>harmful b |    | Definite<br>harm               | risk of<br>ful bias |  |
|    | The decision support intervention shows the  | Mean | 1 | 2                        | 13 | 27                             | 57                  |  |
| 8. | negative and positive features of options with   | 4.20 | 1 | 2                        | 3  | 4                              | 5                   |  |
| 0. | equal detail (for example, using similar fonts, sequence, display or statistical information)                              | 4.38 |   | al impact (<br>harmful b |    | Definite<br>harm               | risk of<br>ful bias |  |
|    |  |      |   |                          |    |                                |                     |  |

## **Dimension 2 - Probabilities**

## Presenting outcome probabilities

#### What is this dimension?

This dimension has 8 items. It assesses the way that probabilistic information is presented. A 'probability' is the chance or likelihood that something will happen. It could mean the chance of a disease, benefit, harm, or side effect. It is often estimated by seeing what happens to large groups of patients in the natural course of the disease or after they have tests or treatments. The groups are usually defined by a disease or condition. Sometimes probabilities are described according to factors that change one's chances (e.g. age, sex, severity of disease, presence of other health problems).

The patient decision support intervention should provide precise and balanced information about the outcome probabilities associated with the options. Information should be presented in a way that facilitates understanding and accounts for individual differences in processing complex information:

- Use of different formats to present probabilities: words, numbers, and pictures;
- Comparison of outcome probabilities across options;
- Levels of uncertainty associated;
- Multiple ways of presenting the probabilities should be used to limit framing biases.

### How might this affect the quality of the decision?

In theory, patient decision support interventions may lead to poor decisions if the probabilities are miscalculated or presented in ways that are misleading. Probabilities are usually based on research studies and calculated by experts in statistics and modelling. Decision aids on the same topic sometimes use different numbers so it may be helpful to identify the source of the probabilities the steps used to calculate them.

# Dimension 2 - Probabilities Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A score of 5 would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

#### **NEW - 1st Round Voting Results**

The voters' responses to each item are displayed in 2 ways:

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The mean (average) scores are shown in the yellow box to the left of the rating scale

|    |   |      | requi                                  |                        | of the it<br>, there | em, or it<br>would be |                     |
|----|---|------|--|------------------------|----------------------|-----------------------|---------------------|
|    | The decision support intervention provides  | Mean | 2                                      | 1                      | 13                   | 32                    | 53                  |
| 1. | information about outcome probabilities   | 4.32 | 1                                      | 2                      | 3                    | 4                     | 5                   |
|    | associated with the options (i.e. the likely consequences of decisions)               |      | Minimal impact on risk of harmful bias |                        |                      | Definite<br>harm      | risk of<br>ful bias |
|    |   | Mean | 0                                      | 6                      | 19                   | 28                    | 48                  |
| 2. | The decision support intervention specifies the                                       | 4.47 | 1                                      | 2                      | 3                    | 4                     | 5                   |
| ۷. | defined group (reference class) of patients for which the outcome probabilities apply | 4.17 |  | al impact<br>harmful b |                      | Definite<br>harm      | risk of<br>ful bias |
|    |   | Mean | 5                                      | 2                      | 11                   | 43                    | 40                  |
| 3. | The decision support intervention specifies the                                       | 4.40 | 1                                      | 2                      | 3                    | 4                     | 5                   |
| ٥. | event rates for the outcome probabilities (in natural frequencies)                    | 4.10 |  | al impact<br>harmful b |                      | Definite<br>harm      | risk of<br>ful bias |
|    |   | Mean | 36                                     | 28                     | 28                   | 6                     | 3                   |
| 4. | The decision support intervention specifies the                                       | 2.07 | 1                                      | 2                      | 3                    | 4                     | 5                   |
|    | time period over which the outcome probabilities apply                                | 3.87 |  | al impact<br>harmful b |                      | Definite<br>harm      | risk of<br>ful bias |

|    |  | Mean | 1 | 4                      | 16 | 34                               | 46                  |  |
|----|--|------|---|------------------------|----|----------------------------------|---------------------|--|
| 5. | The decision support intervention allows the user  | 4.40 | 1 | 2                      | 3  | 4                                | 5                   |  |
| 5. | to compare outcome probabilities across options using the same denominator and time period   | 4.19 |   | al impact<br>harmful b |    | Definite<br>harm                 | risk of<br>ful bias |  |
|    |  | Mean | 3 | 16                     | 24 | 37                               | 21                  |  |
| 6. | The decision support intervention provides   | 2.57 | 1 | 2                      | 3  | 4                                | 5                   |  |
| 0. | information about the levels of uncertainty around event or outcome probabilities (e.g. by giving a range, 'our best estimate is') |      |   | al impact<br>harmful b |    | Definite risk of<br>harmful bias |                     |  |
|    | The decision support intervention provides more than one way of viewing the probabilities (e.g. words, numbers, and diagrams)      | Mean | 5 | 14                     | 30 | 30                               | 22                  |  |
| 7. |  | 3.50 | 1 | 2                      | 3  | 4                                | 5                   |  |
| /. |  |      |   | al impact<br>harmful l |    | Definite<br>harm                 | risk of<br>ful bias |  |
|    |  | Mean | 3 | 5                      | 12 | 32                               | 49                  |  |
| 8. | The decision support intervention provides balanced information about event or outcome   | 4.40 | 1 | 2                      | 3  | 4                                | 5                   |  |
| 0. | probabilities to limit framing biases  | 4.18 |   | al impact<br>harmful b |    | Definite<br>harm                 | risk of<br>ful bias |  |
|    |  |      |   |                        |    |                                  |                     |  |

## **Dimension 3 - Values**

# Clarifying and expressing values

#### What is this dimension?

This dimension has 4 items. It assesses whether the intervention facilitates the expression and clarification of patients/users' values and attitudes regarding the options available. It involves a 2-step process of thinking about and then communicating the personal importance of different positive and negative features of options. Ways of helping patients to clarify and express their values include:

- describing features of options in ways that helps patients imagine what it is like to undergo procedures and to live with the physical, psychological, and social consequences;
- providing examples of how different values may lead to different choices;
- helping patients rate or trade-off different features of the options;
- recording and sharing values with others involved in the decision

## How might this affect the quality of the decision?

In theory, there may not be a good fit between which features matter most to the patient and the option that is chosen if patient decision support interventions only help patients to consider the facts and not personal values.

# Dimension 3 - Values Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A score of 5 would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

#### **NEW - 1st Round Voting Results**

The voters' responses to each item are displayed in 2 ways:

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 Voters who assigned this score to the item in round 1

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|    |  |      | requi | rement o               | of the it<br>, there | meet the e item, or it was ere would be use) |                        |  |
|----|--|------|-------|------------------------|----------------------|--|------------------------|--|
|    |  | Mean | 3     | 9                      | 28                   | 41   | 20                     |  |
|    | The decision support intervention describes the  | 2.45 | 1     | 2                      | 3                    | 4  | 5                      |  |
| 1. | features of options to help patients imagine what It is like to experience the physical effects  |      |       | al impact<br>harmful l |                      | Definite<br>harm                             | e risk of<br>Iful bias |  |
|    |  | Mean | 5     | 14                     | 30                   | 35   | 15                     |  |
| 2  | The decision support intervention describes the features of options to help patients imagine what It is like to experience the psychological effects | 2.42 | 1     | 2                      | 3                    | 4  | 5                      |  |
| ۷. |  | 3.43 |       | al impact<br>harmful l |                      | Definite risk o<br>harmful bia               |                        |  |
|    |  | Mean | 5     | 20                     | 36                   | 26   | 14                     |  |
| 3. | The decision support intervention describes the features of options to help patients imagine what  | 2.24 | 1     | 2                      | 3                    | 4  | 5                      |  |
| ٥. | It is like to experience the social effects  | 3.24 |       | al impact<br>harmful l |                      | Definite<br>harm                             | e risk of<br>Iful bias |  |
|    |  | Mean | 6     | 5                      | 17                   | 23   | 50                     |  |
| 4  | The decision support intervention asks patients  | 4 OF | 1     | 2                      | 3                    | 4  | 5                      |  |
| 4. | to think about which positive and negative features of the options matter most to them   | 4.05 |       | al impact<br>harmful l |                      | Definite<br>harm                             | e risk of<br>Iful bias |  |
|    |  |      |       |                        |                      |  |                        |  |

# **Dimension 4 - Decision Guidance**

### Structured guidance in deliberation and communication

#### What is this dimension?

This dimension has 2 items. It assesses whether the patient decision support intervention provides structured guidance towards making a decision. Guidance provides a step-by-step was of thinking about the options and discussing them with their practitioner. Guidance is provided within a patient decision support intervention. It may be implicit in the way the intervention is organised or explicit by providing a list or worksheet outlining the steps.

### How might this affect the quality of the decision?

Patients are not able to participate in decision making about health care options if they lack skills in the process of thinking about a decision and discussing it with others. Those without these skills may benefit from guidance in a step-by-step process.

# Dimension 4 - Decision Guidance Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A **score of 5** would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

#### **NEW - 1st Round Voting Results**

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|    |  | If the DESI did not med requirement of the ite of low quality, there v (Circle one response) |                        |                        |        |        |                   |                   |
|----|--|--|------------------------|------------------------|--------|--------|-------------------|-------------------|
|    |  | Mean   | 12                     | 17                     | 30     | 0      | 30                | 12                |
|    | The decision support intervention provides a   | 2.42   | 1                      | 2                      | 3      |        | 4                 | 5                 |
| 1. | step-by-step way to make a decision  |  |                        | al impact<br>harmful b |        | defini |                   | tant &<br>sential |
|    |  | Mean   | 10                     | 12                     | 31     |        | 32                | 16                |
| 2. | The decision support intervention includes tools like worksheets or lists of questions to use when | 3.32   | 1                      | 2                      | 3      | •      | 4                 | 5                 |
| ۷. | discussing options with a practitioner   |  | al impact<br>harmful b |                        | defini |        | tant &<br>sential |                   |
|    |  |  |                        |                        |        |        |                   |                   |

# Dimension 5 - Development

### Using a systematic development process

#### What is this dimension?

This dimension has 6 items. It assesses whether the patient decision support intervention was designed using a systematic development process. This should include:

- Needs assessment with patients and health professionals;
- Expert review by patients and health professionals not involved in developing the intervention;
- Field-testing with patients and health professionals.

#### How might this affect the quality of the decision?

In theory, patient decision support interventions may lead to poor decisions if they are developed by people who do not have the knowledge and skills to understand the decision situation and to help patients make decisions. Even qualified people may not design a good decision support intervention, if they do not take time to develop it to meet the needs of the patients who face the specific decision and the practitioners who counsel them about the options. Outside experts may also help to identify things that were missed during development.

# Dimension 5 - Development Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A **score of 5** would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

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|    |  | requi<br>of lov |   | of the i               | item, or it<br>would be |    |                        |
|----|--|-----------------|---|------------------------|-------------------------|----|------------------------|
|    |  | Mean            | 2 | 2                      | 15                      | 26 | 55                     |
|    | The development process included finding out what clients or patients need to prepare them to  | 4.24            | 1 | 2                      | 3                       | 4  | 5                      |
| 1. | discuss a specific decision  | 4.31            |   | al impact<br>harmful b |                         |    | e risk of<br>Iful bias |
|    |  | Mean            | 4 | 6                      | 22                      | 27 | 42                     |
| 2. | The development process included finding out what health professionals need to prepare them to discuss a specific decision with patients | 2.04            | 1 | 2                      | 3                       | 4  | 5                      |
| 2. |  | 3.96            |   | al impact<br>harmful b |                         |    | e risk of<br>Iful bias |
|    |  | Mean            | 4 | 15                     | 19                      | 32 | 31                     |
| 3. | The development process included review by   | 2.70            | 1 | 2                      | 3                       | 4  | 5                      |
| 3. | clients/patients not involved in producing the decision support intervention   | 3.70            |   | al impact<br>harmful b |                         |    | e risk of<br>Iful bias |
|    |  | Mean            | 4 | 13                     | 24                      | 35 | 25                     |
| 4. | The development process included review by   | 2 (2            | 1 | 2                      | 3                       | 4  | 5                      |
| 4. | professionals not involved in producing the decision support intervention  | 3.63            |   | al impact<br>harmful b |                         |    | e risk of<br>Iful bias |

|    | The decision support intervention was field tested with patients who are facing the decision                     | Mean | 1 | 4                        | 8  | 34                | 54                 |
|----|--|------|---|--------------------------|----|-------------------|--------------------|
| 5. |  | 4.25 | 1 | 2                        | 3  | 4                 | 5                  |
|    |  | 4.35 |   | al impact (<br>harmful b |    | Definite<br>harmi | risk of<br>ul bias |
|    | The decision support intervention was field tested with practitioners who counsel patients who face the decision | Mean | 4 | 9                        | 19 | 37                | 32                 |
| _  |  | 2.02 | 1 | 2                        | 3  | 4                 | 5                  |
| 6. |  | 3.83 |   | al impact (<br>harmful b |    | Definite<br>harmi | risk of<br>ul bias |
|    |  |      |   |                          |    |                   |                    |

# **Dimension 6 - Evidence**

## Using evidence

#### What is this dimension?

This dimension has 5 items. It assesses the quality of the scientific evidence used in developing the patient decision support intervention. The patient decision support intervention is expected to provide citations to the studies selected. It should describe how research evidence was synthesized and information about the quality of the research evidence used. A production or publication date should be displayed and information about the proposed update policy should be provided. The patient decision support intervention should use up-to-date research from the best available scientific studies.

# How might this affect the quality of the decision?

In theory, decision support interventions may lead to poor decision if they contain information from studies that are inaccurate, biased, incomplete, out-dated or are based on patients who are different from those most likely to use the decision support intervention.

# Dimension 6 - Evidence Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

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|    |   |      | If the DESI did not meet the requirement of the item, or it was of low quality, there would be (Circle one response) |                          |    |                               |                     |  |  |  |
|----|---|------|--|--------------------------|----|-------------------------------|---------------------|--|--|--|
|    |   | Mean | 10   | 13                       | 20 | 26                            | 32                  |  |  |  |
|    | The decision support intervention (or associated  | 3.56 | 1  | 2                        | 3  | 4                             | 5                   |  |  |  |
| 1. | selected  |      |  | al impact o<br>harmful b |    | Definite risk of harmful bias |                     |  |  |  |
|    |   | Mean | 9  | 21                       | 22 | 24                            | 25                  |  |  |  |
| 2. | The decision support intervention (or associated documentation) describes how research evidence | 2.25 | 1  | 2                        | 3  | 4                             | 5                   |  |  |  |
| ۷. | was selected or synthesised   | 3.35 |  | al impact o<br>harmful b |    | Definite<br>harm              | risk of<br>ful bias |  |  |  |
|    |   | Mean | 5  | 12                       | 17 | 28                            | 39                  |  |  |  |
| 3. | The decision support intervention (or associated  | 2.02 | 1  | 2                        | 3  | 4                             | 5                   |  |  |  |
| ٥. | documentation) provides a production or publication date  | 3.83 |  | al impact o<br>harmful b |    | Definite<br>harm              | risk of<br>ful bias |  |  |  |
|    |   | Mean | 16   | 17                       | 27 | 24                            | 17                  |  |  |  |
|    | The decision support intervention (or associated  | 2.00 | 1  | 2                        | 3  | 4                             | 5                   |  |  |  |
| 4. | documentation) provides information about the update policy                                     | 3.09 |  | al impact o<br>harmful b |    | Definite<br>harm              | risk of<br>ful bias |  |  |  |

|    |   | Mean | 5 | 11                     | 22 | 36               | 27                  |
|----|---|------|---|------------------------|----|------------------|---------------------|
| 5  | The decision support intervention (or associated                      | 3.68 | 1 | 2                      | 3  | 4                | 5                   |
| ο. | 5. documentation) describes the quality of the research evidence used |      |   | al impact<br>harmful b |    | Definite<br>harm | risk of<br>ful bias |
|    |   |      |   |                        |    |                  |                     |

## Dimension 7 - Disclosure

#### **Disclosure**

#### What is this dimension?

This dimension has 2 items. It assesses the patient decision support intervention's transparency regarding the funding used for development, developers credentials or qualifications, and affiliations of the developers

#### How might this affect the quality of the decision?

Often, decisions about medical tests or treatments have financial implications for practitioners, their institutions, and for commercial companies that make an sell related products. In theory, these financial interests may influence the content of a patient decision support intervention, particularly when individuals or groups who stand to gain (or lose) are involved with developing the patient decision aid. By clearly identifying individuals or groups involved who have a potential financial interest in the content of an intervention, patients can decide for themselves whether or not the content is biased.

# Dimension 7 - Disclosure Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A **score of 5** would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

#### **NEW - 1st Round Voting Results**

The voters' responses to each item are displayed in 2 ways:

• Percentages (%) are shown in red above the 1-5 rating scale. These are the percentage of the 101 Voters who assigned this score to the item in round 1

The mean (average) scores are shown in the yellow box to the left of the rating scale

|    |  |      | If the DESI did not meet the requirement of the item, or it of low quality, there would be (Circle one response) |                        |                               |                   |                     |  |
|----|--|------|--|------------------------|-------------------------------|-------------------|---------------------|--|
|    |  | Mean | 6  | 8                      | 10                            | 25                | 52                  |  |
|    | The decision support intervention (or associated documentation) provides information about the | 4.08 | 1  | 2                      | 3                             | 4                 | 5                   |  |
| 1. | documentation) provides information about the funding used for development                     |      |  | ıl impact<br>harmful b |                               | Definite<br>harmi | risk of<br>ful bias |  |
|    |  | Mean | 8  | 10                     | 28                            | 34                | 21                  |  |
| 2. | The decision support intervention includes   | 2.50 | 1  | 2                      | 3                             | 4                 | 5                   |  |
| ۷. | author/developers credentials or qualifications  | 3.50 | Minima<br>risk of  |                        | Definite risk of harmful bias |                   |                     |  |
|    |  |      |  |                        |                               |                   |                     |  |

# Dimension 8 - Plain Language

### Using plain language

#### What is this dimension?

This dimension has 1 item. It assesses the use of plain language in the patient decision support intervention. The intervention should incorporate ways to share health information that promote understanding and improve readability for all audiences, including those with limited health literacy. This includes the use of everyday language and information that is structured, flows logically, and is focused. Readability is one measure of the reading ease or difficulty of text, expressed as a 'grade level' score. Some valid measures of readability include SMOG and FRY.

# How might this affect the quality of the decision?

In theory, patient decision support interventions may lead to poor decisions if most patients cannot read, understand, and use the information. Patient decision support interventions that use plain language make it easier for patients to learn about their options.

# Dimension 8 - Plain Language Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A score of 5 would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

#### **NEW - 1st Round Voting Results**

The voters' responses to each item are displayed in 2 ways:

• Percentages (%) are shown in red above the 1-5 rating scale. These are the percentage of the 101 Voters who assigned this score to the item in round 1

The mean (average) scores are shown in the vellow box to the left of the rating scale

|    |   | If the DESI did not meet the requirement of the item, or it was of low quality, there would be (Circle one response) |    |                        |    |    |                        |
|----|---|--|----|------------------------|----|----|------------------------|
|    |   | Mean   | 15 | 12                     | 23 | 25 | 26                     |
| 4  | The decision support intervention (or associated                                      | 2.25   | 1  | 2                      | 3  | 4  | 5                      |
| 1. | documentation) reports readability levels (using one or more of the available scales) | 3.35   |    | ıl impact<br>harmful l |    |    | e risk of<br>Iful bias |
|    |   |  |    |                        |    |    |                        |

# **Dimension 9 - Evaluation**

## Evaluating the decision support intervention

#### What is this dimension?

This dimension has 2 items. It assesses whether the patient decision support intervention (after evaluation) helped patients/users make an informed choice: improved knowledge about the features of the options; improved match between patient preferences and option chosen.

### How might this affect the quality of the decision?

Most people agree that patient decision support interventions should help patients and their practitioners improve decision making. It is important to know what to look for in order to conclude that an intervention does more good than harm.

# Dimension 9 - Evaluation Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A score of 5 would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

#### **NEW - 1st Round Voting Results**

The voters' responses to each item are displayed in 2 ways:

• Percentages (%) are shown in red above the 1-5 rating scale. These are the percentage of the 101 Voters who assigned this score to the item in round 1

The mean (average) scores are shown in the yellow box to the left of the rating scale

|    |   |      | If the DESI did not meet the requirement of the item, or it was of low quality, there would be (Circle one response) |   |    |                                  |    |
|----|---|------|--|---|----|----------------------------------|----|
|    | There is evidence that the decision support intervention improves the match between the preferences of the informed patient and the option that is chosen | Mean | 18   | 6 | 21 | 33                               | 23 |
| 1. |   | 3.37 | 1  | 2 | 3  | 4                                | 5  |
|    |   |      | Minimal impact on risk of harmful bias   |   |    | Definite risk of<br>harmful bias |    |
|    | There is evidence that the decision support intervention helps patients improve their knowledge about options' features                                   | Mean | 9  | 8 | 23 | 32                               | 29 |
| 2. |   | 3.63 | 1  | 2 | 3  | 4                                | 5  |
|    |   |      | Minimal impact on risk of harmful bias   |   |    | Definite risk of<br>harmful bias |    |

## **Dimension 10 - Test**

For decision support interventions directed at investigations or screening tests

#### What is this dimension?

This dimension has 9 items and is only applicable to patient decision support interventions that address screening or diagnostic tests. It assesses whether the specific features of a screening or diagnostic test are described in sufficient details. Accurate information about false positive/negative and true positive/negative test results should be provided. This information should be framed in multiple ways to facilitate understanding. The intervention is expected to include information about the implications and consequences of accepting or declining the investigation or screening procedure, including possible further tests or treatments. This also includes information about 'over-detection'; this happens when a disease is found that would not have been diagnosed or caused symptoms within a person's lifetime had the person not been screened.

## How might this affect the quality of the decision?

In theory, patient decision support interventions may lead to poor decisions if the facts given are incomplete or superficial. This includes information related to the test or screening procedure. For ethical and legal reasons, patients have the right to get full and accurate information before giving their consent to a medical test or treatment. For patients actively involved in choosing options, more detailed information about test outcomes may be needed.

# Dimension 10 - Test Voting page

Please assess whether the subject of the item should be included as a 'must have' component of patient decision support interventions (DESIs).

Score on the basis that if the patient decision support intervention **did not** meet the requirement of the item, or it was of **low quality**, then there would be a risk to the user of harmful bias.

The rating scales range from 1-5.

A score of 1 would indicate that the item is not a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be minimal or no impact on the risk of harmful bias to the user.

A score of 5 would indicate that the item is a 'must have' item. If the patient decision support intervention did not meet the requirement of the item, or it was of low quality, there would be a definite risk of harmful bias to the user.

**NEW - 1st Round Voting Results** 

The voters' responses to each item are displayed in 2 ways:

Percentages (%) are shown in red above the 1-5 rating scale. These are the percentage of the 101
 Voters who assigned this score to the item in round 1

The mean (average) scores are shown in the yellow box to the left of the rating scale

|    |   |           | If the DESI did not meet the requirement of the item, or it was of low quality, there would be (Circle one response) |   |   |                                  |    |  |
|----|---|-----------|--|---|---|----------------------------------|----|--|
|    |   | Mean      | 0  | 4 | 4 | 22                               | 70 |  |
| 1. | The decision support intervention describes what the test is designed to measure                                | 4.58      | 1  | 2 | 3 | 4                                | 5  |  |
|    |   |           | Minimal impact on risk of harmful bias   |   |   | Definite risk of<br>harmful bias |    |  |
| 2. | The decision support intervention includes information about the chances of having a true positive test result  | Mean      | 1  | 1 | 6 | 33                               | 59 |  |
|    |   | 4.49      | 1  | 2 | 3 | 4                                | 5  |  |
|    |   |           | Minimal impact on risk of harmful bias   |   |   | Definite risk of harmful bias    |    |  |
| 3. | The decision support intervention includes information about the chances of having a true negative test result  | Mean 4.41 | 2  | 2 | 6 | 34                               | 56 |  |
|    |   |           | 1  | 2 | 3 | 4                                | 5  |  |
|    |   |           | Minimal impact on risk of harmful bias   |   |   | Definite risk of harmful bias    |    |  |
| 4. | The decision support intervention includes information about the chances of having a false positive test result | Mean      | 1  | 1 | 6 | 32                               | 60 |  |
|    |   | 4.50      | 1  | 2 | 3 | 4                                | 5  |  |
|    |   | 4.50      | Minimal impact on risk of harmful bias   |   |   | Definite risk of<br>harmful bias |    |  |

|    |  | Mean        | 1                                      | 1 | 8  | 28                               | 62 |
|----|--|-------------|--|---|----|----------------------------------|----|
| 5. | The decision support intervention includes information about the chances of having a false negative test result  | 4.50        | 1                                      | 2 | 3  | 4                                | 5  |
|    |  | 1.30        | Minimal impact on risk of harmful bias |   |    | Definite risk of<br>harmful bias |    |
|    |  | Mean        | 2                                      | 2 | 5  | 39                               | 53 |
| 6. | If the tests detects the condition or problem, the decision support intervention describes the next steps typically taken  | 4.38        | 1                                      | 2 | 3  | 4                                | 5  |
|    |  |             | Minimal impact on risk of harmful bias |   |    | Definite risk of<br>harmful bias |    |
| 7. | The decision support intervention describes the next steps if the condition or problem is not detected   | Mean        | 3                                      | 5 | 16 | 38                               | 39 |
|    |  | 4.04        | 1                                      | 2 | 3  | 4                                | 5  |
|    |  |             | Minimal impact on risk of harmful bias |   |    | Definite risk of<br>harmful bias |    |
|    | The decision support intervention describes the chances the disease is detected with and without the use of the test   | Mean        | 2                                      | 5 | 13 | 37                               | 44 |
|    |  | 4.45        | 1                                      | 2 | 3  | 4                                | 5  |
| 8. |  | 4.15        | Minimal impact on risk of harmful bias |   |    | Definite risk of<br>harmful bias |    |
|    | The decision support intervention has information about the consequences of detecting the condition or disease that would never have caused problems if screening had not been done (lead time bias) | Mean        | 0                                      | 4 | 10 | 35                               | 52 |
|    |  | 4 2 4       | 1                                      | 2 | 3  | 4                                | 5  |
| 9. |  | <b>4.34</b> | Minimal impact on risk of harmful bias |   |    | Definite risk of<br>harmful bias |    |
|    |  |             |  |   |    |                                  |    |

# Thank you for completing the survey

We are very grateful for your contribution to the consensus on core criteria for IPDASi

If you have any further questions about the consensus process, please do not hesitate to contact the research team at <a href="mailto:ipdas@cardiff.ac.uk">ipdas@cardiff.ac.uk</a>

# Glossary

**Authors.** The people with primary responsibility for the patient decision support intervention's contents are listed, including their credentials and affiliations. For example: Natasha Fatale, M.D., Chief of Urology, Pottsylvania Medical Center.

**Balanced presentation of options and their features**. The use of the same level of detail and degree of prominence when displaying information in favour of and against the options/consequences (FDA Fair Balance Prescription Drug Advertising Act of 2001). Whether the information is balanced depends on three factors: format, sequencing, and framing.

**Benefits.** Intended positive features or consequences of an option. Benefits can be temporary or permanent. Patients may also get a benefit from having no treatment. Benefits should be described in terms of how strong the positive effect will be, how long it might last, and how often someone can expect to enjoy the positive outcome.

**Cochrane Review.** Conducted as part of the Cochrane Collaboration, a Cochrane review is a systematic review of research studies to learn about the effect of health interventions such as patient decision support interventions. Systematic reviews are defined as a rigorous process, specified at the beginning of the study, to a) conduct a comprehensive search of the literature for all relevant studies on a specific topic; b) appraise the quality of the identified studies; and c) synthesis the findings into a single report. The Cochrane Collaboration is an international not-for-profit organisation that produces and circulates systematic reviews of health care interventions and promotes the search for evidence to help support health care decisions (www.cochrane.org).

**Cochrane Review of Patient Decision Aids.** A systematic review of randomized controlled trials evaluating the effect of patient decision support interventions for patients facing actual screening or treatment decisions.

**Conditional probability.** A measure of how likely something is to happen, based on existing information. For example, a measure of how likely someone is to suffer from a heart attack, if that person is a smoker. The likelihood would be different if the person were not a smoker.

**Conflict of interest.** "A set of conditions in which professional judgment concerning a primary interest (such as patient"s welfare or the validity of research) tends to be unduly influenced by secondary interest (such as financial gain)". (Thompson DF. Understanding financial conflicts of interest. New Engl J Med 1993; 329:573-576)

**Decision support.** Helping another person make a decision. It may be provided before a visit to a practitioner (in preparation for making a decision) or during a visit with a practitioner (while making the decision).

**Deliberation**. The process of thoughtfully considering and discussing all sides of a decision that involves choosing among alternative actions.

**Denominator.** A mathematical term that appears on the bottom of a fraction. For example, in the fraction 1/100, the denominator is 100. When probabilities are stated in the decision support intervention, they should use the same denominator in order to facilitate comparison across options. For example, imagine a decision support intervention that presented two different drug treatment options. If the intervention stated 10/100 people will experience nausea from treatment option A, they should presented the risk of nausea for treatment option B using the same denominator e.g. 2/100 and not 1/50.

**Decision support interventions (decision aids):** Decision support interventions help people think about choices they face; they describe where and why choice exists, in short, conditions of dual equipoise; they provide information about options, including, where reasonable, the option of taking no action. These interventions help people to deliberate, independently or in collaboration with others, about options by

considering relevant attributes; they support people to forecast how they might feel about short, intermediate, and long-term outcomes that have relevant consequences, in ways that help the process of constructing preferences and eventual decision making appropriate to their individual situation

**Development process.** The steps taken by the authors/creators of the patient decision support intervention to understand the needs of potential users (e.g. patients and health care practitioners), and to consult experts and users to design, revise, and guide the development of patient decision support interventions.

**Dimension** (**IPDASi**). This refers to the broad area within which quality is assessed. The broad dimensions are made up of more specific items that are scored. The dimension score is the mean of the item scores within the dimension (see *Item* for further detail).

**Disclosure of conflicts of interest.** Providing information on factors that have the potential to unduly influence the content of patient decision support interventions, such as the source of funding (for their development and production; people primarily responsible for the content) and affiliations of patient decision support developers.

**Event rate.** The number of events (events might be benefits, harms, or side effects) that occur in a defined group of people (population) over a defined period of time. For example: if 1000 patients are treated our best guess is 2 patients may die. If 1000 patients are not treated our best guess is 4 patients may die. (Users Guides to the Medical Literature 2002).

**Evidence.** Knowledge gained through scientific research.

**False negative.** This refers to a test result that tells you a disease or condition is not present, when in fact it is present. A false negative test result is an error, which means the result is not giving you the correct information. For example, if a person had a blood test designed to detect colon cancer, and the results show that the person does not have colon cancer, when in fact they do have the disease, this is a false negative.

**False positive.** This is the opposite of a false negative and refers to a test result that tells you a disease or condition is present, when in fact it is not present. A false positive is an error, which means the result is not giving you the correct information.

*Field-testing.* Formal testing in "real life" settings where the patient decision support intervention is intended to be used, with patients and practitioners who are actually involved in making a decision. Results of field-testing are used to improve the decision support intervention.

**Financial interests.** The potential financial interests of any company related to the patient decision support intervention's clinical content are clearly explained in plain language. For example: The NewName Pharmaceutical Company, Inc., a for-profit company, makes and sells Borisol, one of the treatment choices described in this program. The Richards Foundation is a charitable, not-for- profit group completely funded by the NewName Pharmaceutical Company, Inc.

*Framing.* The way health statistics and information is presented with:

- Similar use of positive and negative words to describe the intensity of the benefits or harms without being too sensational or alarmist;
  - Similar display of numbers of the chances of experiencing benefits and harms;
  - Similar level of detail for both benefits and harms; and
- Balanced examples of patients' experiences so that equal space is given to different viewpoints and choices.

Framing can make patients feel differently about the options. For example, it can make patients feel differently to be told the "death rate" of a procedure rather than the "survival rate". It is alarming to hear that 20% of patients might die from a surgery but reassuring to remember that 80% survive. Hence, framing is the expression of the same information in different ways.

Format. This refers to how the information about benefits and harms looks or sounds:

- For written resources, the size of the type, the spacing, and the page layout of information should be the same throughout the patient decision support.
- For audio or video resources, consistent volume and length of airtime is important for all options.

**Funding sources.** The agencies or organisations that provide the money to pay for the patient decision support intervention. It must be is clearly and prominently acknowledged. For example: This program was funded by grants from the Government of Pottsylvania, the Richards Foundation, and the Badenov Pharmaceutical Company, Inc. It is important that the information about sources of funding is presented in a way that ensures that it will be seen and understood by the user. Ideally, this information should appear in clear large print at the beginning of the patient decision support.

**Guidance in communication.** To outline possible questions and concerns, discuss barriers to communicating with practitioners (such as shyness, defensiveness and confusion,) and then provide a systematic approach to helping overcome these barriers to make sure the patients" questions and concerns are raised and addressed. Guidance can be provided in a variety of ways including by printed materials, an internet site, audio or video tapes.

**Guidance in deliberation.** To outline possible actions, and then provide a systematic approach to comparing and contrasting those actions. Guidance can be provided in a variety of ways including printed materials, an internet site, audio or video tapes.

**Guidance methods.** Instruction or direction in the steps of decision making. Some examples may include a list of the steps for making a high quality decision, filling in a worksheet that helps patients to clarify their values about treatment options, or a list of questions to ask the doctor or decision coach.

**Harmful bias.** The aim of the consensus process is to identify those criteria, which if not present, or of low quality, would lead to a risk of harmful bias and negatively affect patients' decision-making. In this context, we take harmful bias to mean the possibility that decision making that is influenced by factors or representations that have not been addressed by: attention to the evidence base; a systematic development process; accurate information representations; decision guidance/support.

Harms and side effects. Unintended negative features or consequences of an option. These can be temporary or permanent and major or minor. Descriptions of harms and side effects should include how severe the negative effect will be, how long it might last, and how often someone can expect to experience the negative effect. An example of harm is the development of breast cancer from taking estrogen and progesterone. An example of a side effect is upset stomach from taking an antibiotic pill.

**Health care consumer.** A person who faces a health-related issue (for example, a decision to be tested for a disease) or who has been diagnosed with a disease or condition.

**Health literacy.** An individual's ability to perform basic reading, listening, computing and observing to obtain, understand, and use health information.

*Index decision.* This refers to the specific decision that the decision support intervention is designed to address; the decision that needs to be considered.

*Informed consent.* A conscious action taken by a person to give permission for something to occur which involves their person or privacy. For example, giving permission for a doctor to perform a medical test or for personal information to be published.

*Item (IPDASi).* This refers to the specific area within which quality is assessed. Each broad dimension is made up of the specific items (see *Dimension* for further detail).

**Lead time bias.** The intention of screening is to diagnose a disease earlier than it would be without screening. Without screening the disease may be discovered later, when symptoms appear. Even if in both cases a person will die at the same time, because we diagnosed the disease earlier with screening the *survival time since diagnosis* is longer with screening; but *life span* has not been prolonged, and there will be added anxiety as the patient must live with knowledge of the disease for longer.

Lead time bias is the bias that occurs when screening diagnoses the disease earlier, but there is no effect on the outcome of the disease - it may appear that the test prolonged survival, when in fact it only resulted in earlier diagnosis when compared to traditional methods.

Measurable improvements in the quality of decision-making. The most convincing evidence that a patient decision support intervention would really improve decision quality is likely to be generated by controlled study designs that compare two groups of patients who both face the decision: one group that experiences use of the patient decision support in practice and another group that experiences usual practice (without a patient decision support). An improvement in the quality of decision making with the patient decision support would be shown if the group who used the patient decision support in practice had a greater match between their values individual values and the health care options they selected.

**Medical tests (screening and diagnostic).** Tests performed on healthy people to see if they have a disease (diagnostic) or to see if they are likely to have a disease or condition (screening).

**Medical treatments.** Effective treatments that medical professionals judge to be ethical and which are available to patients in their community.

Natural frequency. This term means the same as "Event rate". (Gigerenzer 2003).

**Needs.** Gaps between what is known and what is needed to make a decision.

**Needs Assessment.** There are two-types of needs assessment used in the development of patient decision support interventions: patient and health professional. A needs assessment can tell us what information patients need to prepare them to discuss a specific decision, and what health professionals need to prepare them to discuss the decision with patients. It can help determine what information patients need to make decisions that match the personal importance they feel toward the positive and negative features of their options. For example, before coming to a decision about treatment, patients first need to know basic information about their condition. They also need to know about possible treatment options (including doing nothing) and the potential benefits and harms involved.

**Over-detection (or over-diagnosis).** Detection by screening tests of disease which, without screening, would not have been diagnosed or caused symptoms within the person's lifetime. A common example is detection of low grade prostate cancer by PSA testing which would not have harmed the person in their lifetime. Also described as detection of pseudo-disease.

**Patient.** A health care consumer who faces a health-related issue (e.g. a screening decision) or who has been diagnosed with a disease (e.g. diagnostic test or treatment decisions). Other names include public, people, person, health consumer, or patient decision support users.

**Patient Decision Support Intervention (DESI).** Resources created to help patients make specific health decision when there is more than one option (including the status quo). They providing (at the minimum) information on the options and the features of these options (benefits, harms, pros, cons, side effects, inconveniences) (O"Connor et al., BMJ, 1999).

**Patient stories.** Accounts from patients with a health condition describing their experiences with the condition, options, decision-making, and consequences or outcomes. These may be collected as audio or video recorded interviews or as written stories. The characteristics of stories in patient decision support usually vary depending on whether they involve a health issue faced by otherwise healthy people or a treatment decision for a life-threatening illness. Many examples of "others' experiences" are a combination of details of several real cases (O"Connor, Drake et al, 1999; O"Connor & Jacobsen, 2003).

**Plain language.** The use of ways to clearly communicate health information that creates optimal understanding.

**Practitioner.** A health care professional that provides direct care to patients or public. This includes physicians, nurses, physiotherapists, pharmacists, and social workers.

**Probability.** The chance that something will occur. Probabilities are typically estimated by observing what happens to large groups of patients. For example, watching 10,000 men aged 60 years for 10 years to see how many die. The probability of dying in this group over 10 years might be 1,500 out of 10,000. If a patient is similar to the patients in the group, it would say the best guess at a patient's chance of dying over the next 10 years is 1,500 out of 10,000.

**Quality of the Evidence.** How accurate the descriptions and the estimated effects of different options are. This evidence often comes from one or more studies or resources. The quality of evidence depends on several factors, including the strength of the study design, the quality of the methods, whether there is agreement among studies of the same health option, and how directly the studies address the health option.

**Readability.** A measure of the reading ease or difficulty of printed materials. It is usually measured using proven formulas that gauge the length of words in syllables and length of sentences (e.g. SMOG, Fry).

**Reference class.** This is the group of patients who might have a side effect or suffer from a disease in a set period of time. It is the denominator of an event rate, which is the group of patients who, over a specified period of time, are at risk of an event (Gigerenzer 2003).

**Relative risk reduction.** Relative risk measures how much the likelihood of something happening is reduced in a group of patients who take a treatment, compared to a group of patients who don't. For example, if 60% of a non-treated group of patients died and only 30% of the treated group died, the treatment would have a relative risk reduction of 0.5 or 50%. Therefore, the death rate in the treated group is half of that in the control group. The relative risk reduction is the ratio of the event rate in patients exposed (intervention group) to the event rate in patients not exposed (control group) to a specified intervention (Users Guides to the Medical Literature 2002).

**Risk.** In this context, risk can mean the same as probability – that is, the chance that something will occur. For example, risk can be the chance that a positive or negative feature of an option will occur.

**Sequence.** The order in which the information on options and consequences (benefits and harms) is provided. It should be the same for all the options.

**True negative.** The extent to which a test result is accurate and free from false positives. The fewer the number of false positives, the greater the specificity of the test. The proportion of individuals without a disease or condition that are correctly identified by a test.

**True positive.** The extent to which a test result is accurate and free from false negatives. The fewer the number of false negatives, the greater the specificity of the test. The proportion of individuals with a disease or condition that are correctly identified by a test.

**Uncertainty.** In the context of outcome measurements, uncertainty refers to the estimated amount or percentage by which an observed or calculated value may differ from the true value. In decision support interventions, this can be presented as confidence intervals, ranges, or by using phrases such as 'our best estimate is'.

**Users.** Patients who face the decision and health practitioners who help patients learn about their options to make the decision.

**Values.** How a person feels about or rates the importance of options and their positive and negative features. These preferences are based on how their health might be affected by the decision, their attitudes about the chances each option holds for bringing benefits or harms, their willingness to make trade-offs over time, how they feel about certain medical procedures or anything else that might be useful in making the decision.

**Values clarification.** Ways to help patients form and share how important various options and their features are. Examples include: a) describing features of options so patients can imagine and value what it is like to undergo procedures and live with the consequences; b) providing examples of how other patients" values led them to make different choices; c) bringing forth values by guiding patients to rate or trade-off different features of options; and d) recording, guiding, or coaching patients to help them share their values with others involved in the decision.