Delphi plain language summary

How are health care treatments developed?

To help patients, doctors and other health professionals make decisions about treatments, we need evidence about what works best. Treatments are developed and tested by researchers to make sure they work and are safe. To do this researchers need to look at the effects those treatments have on patients. Researchers do this by measuring an 'outcome'. For example, in a study of how well a new asthma treatment works, 'outcomes' might include:

- A measure of how fast you can blow air out of your lungs
- Night time wheeze
- Asthma quality of life measure

How do researchers decide on what outcomes are important to measure in research studies?

When researchers design research studies to investigate treatments for health conditions they need to measure outcomes that are important and relevant to those people affected by the condition. To decide which outcomes are important researchers need to get everyone's opinion and try to reach agreement, or "consensus", on the most important outcomes. In order to do this, researchers carry out a 'consensus exercise'. One way of doing this is by using something called a 'Delphi' study. In a Delphi study researchers identify groups of people who are "experts" in the health condition they are interested in. "Experts" are:

- People with personal experience of the condition, for example, patients, carers and service users (it doesn't matter how long the person has had the condition for, their opinion is incredibly valuable).
- Health professionals with expertise in treating and caring for people with the condition.

Experts taking part in a Delphi study are asked to give their opinion on what outcomes are most important. The study is anonymous to make sure everyone has an equal say.

What happens early on in a Delphi Study?

The research team will have developed a long list of possible outcomes that they want to ask the experts about. This list is likely to have been created after looking at research papers, and sometimes after interviewing patients (see the flowchart on page 2)

What happens next?

Each expert is usually sent the list in the form of a questionnaire / survey by post or email and asked to score the importance of each outcome. If, in their opinion, there are key outcomes missing from the list, they are encouraged to add these to the list. We refer to this as "Round 1" of the Delphi study.

Each expert sends their ratings back to the research team, who then summarise the responses from the group as a whole and send this summary back to each expert in what we refer to as Round 2 of the Delphi process. At this stage each expert is given a reminder of how they scored the outcome last time and the range of scores of the rest of the group.

No-one in the group can see another individual's scores; they can only see the overall results for the group as a whole. Using this information each expert is asked to reflect on their own view and on the view

of the group and to decide whether to stick with their original rating or change it. Through the whole process no-one is under any pressure to change their rating if they don't want to. , It is perfectly fine for people to stick with their original rating even if they rated the outcome differently to the rest of the group.

The responses of the experts are then sent back again to the research team who again collate the information. Every time the researchers ask the experts for their opinions we call this a 'round' of the Delphi. Studies differ in how many rounds take place, but usually this is two or three times. Each time the idea is that the experts review their previous score based on what the group rated in their last round.

Usually at the end of the questionnaires / survey the researchers invite all the experts to get together face to face to discuss the results, although people do not have to attend if they do not want to. At the end of this process the research team produce a report on what the experts have agreed as the most important outcomes. These are called the 'core outcomes' for a particular health condition.

COMET would like to thank the many patients, parents and carers who gave their time to comment on the development of this summary.

The Delphi Process Summary

