

Piloting Structured Expert Elicitation: An Exploratory Case Study of Practical Implementation

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BACKGROUND

Public reimbursement decisions for new medicines are often made under substantial uncertainty regarding treatment effects, patient outcomes, and costs. This uncertainty is particularly pronounced for small patient populations, such as in precision medicine and rare diseases, where available evidence often comes from phase II or single-arm trials without control groups. In such cases, decision-makers frequently cite "excessive uncertainty" as a barrier to public funding.

Structured Expert Elicitation (SEE) provides a systematic approach to capture and quantify expert judgements when clinical evidence is limited.

METHODS

An SEE pilot was conducted for pemigatinib in the treatment of bile duct cancer, based on the single-arm FIGHT-202 trial. Relevant oncologists were recruited systematically.

The overall process followed a structured stepwise approach based on published protocols (**Figure 1**) [1, 2]. Relevant oncologists were recruited in a systematic way. Following existing SEE protocols, an evidence brief, including information on the relevant studies and a description of the SEE methodology, was distributed prior to the elicitation. Individual elicitations were conducted to estimate progression-free survival (PFS) at 6 and 12 months, and overall survival (OS) at 6, 12 and 36 months for patients receiving pemetrexed or standard of care (SoC), with uncertainty elicited using the Roulette method.

A group consensus workshop followed, in which anonymized individual results were presented, as well as a mean of the individual distributions. The experts then discussed and agreed on final distributions (Figure 2). Feedback from experts on the SEE methodology was collected throughout the pilot and through a survey following the consensus meeting.

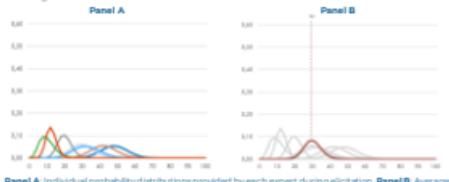
OBJECTIVES

SEE techniques can support healthcare decision making, for example, when faced with evidence from single-arm trials or for informing long-term extrapolation. New guidelines and have recently been published by ISPOR and NICE DSU TSD, however SEE evaluations still show a significant amount of heterogeneity in the way it is conducted. The purpose of this study was to evaluate an SEE pilot project, aiming to gain local experience on SEE.

KEY FINDINGS

The SEE pilot demonstrated that the method is feasible and useful in a Norwegian setting. Potential areas for further improvement were identified regarding meeting format, expert preparation, and avoidance of anchoring in consensus discussions.

Figure 2: Individual and aggregated estimates presented in the consensus meeting.



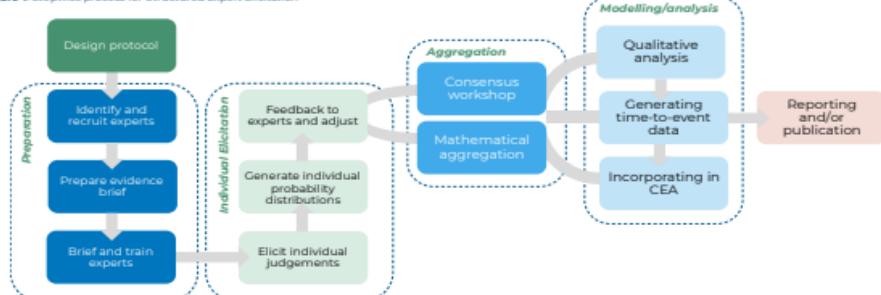
basis for discussion

Seven experts were recruited for elicitation, out of whom five attended the group consensus workshop (three in person, two digitally). Three improvements to the implemented methodology were suggested. **First**, hybrid format consensus meetings may lead to skewed degrees of participation. Exclusively in person or digital participation should be the norm. **Second**, the degree of preparation that experts showed before their individual and consensus elicitation varied. An overview of the key materials at the start of each interview may be valuable. **Finally**, the consensus elicitation presented all individual estimates as well as a mean of individual distributions for discussion due to time constraints. While efficient, the experts tended to agree with this average distribution, suggesting a potential anchoring effect.

CONCLUSION

This evaluation provides lessons towards refining SEE implementation in practice. However, SEE methodology is still under development, and there is need for more practical experience with implementation.

Figure 1: Stepwise process for Structured Expert Elicitation



References

1 Boje L, et al. Developing a reference protocol for structured expert elicitation in healthcare decision-making: a mixed-methods study. *Health Technol Assess*. 2021;25(10):1-124.
2 Scarne M, et al. Recommendations on the Use of Structured Expert Elicitation Protocols for Healthcare Decision Making: A Good Practices Report of an ISPOR Task Force. *Value in Health*. 2024;27(1):1669-1698.

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