



**Abstract of parallel session: 8**

Title: How individualized quantitative benefit harm assessments can inform preference-sensitive guidelines

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**Background**

Whether an intervention carries a potential net benefit for an individual depends not only on the expected outcome risks and the effects of the intervention, but also on the individual's preferences. Our aim was to explore approaches to inform guideline development on the optimal treatment for individuals or subgroup populations in three examples from diabetes and cardiovascular disease.

**Methods**

We performed individualized quantitative benefit harm assessments based on the Gail/National Cancer Institute approach for the three examples. For two of them, we presented subgroup results to guideline developers. For one example, we developed and tested a patient decision aid that shows the net balance of benefits and harms based on the individual's preferences and risks.

**Results**

The benefit harm balance of basal insulin versus sulfonylurea as second-line treatments for diabetes depended strongly on the preferences for outcomes. For the treatment of hypertension, depending on a combination of comorbidities, age and gender as well as patient preferences, optimal blood pressure targets differed. Guideline developers suggested recommendations could be made that shared decision-making conversations should take place if the net benefit harm balance is preference-sensitive. We developed and tested a novel type of decision-aid with the example of low dose aspirin for the primary prevention of cardiovascular disease. The respondents gave positive feedback on the tool and were able to correctly interpret the net benefit harm balance.

**Conclusions**

Population-level recommendations may often be inappropriate, as there can be significant differences between subgroups defined according to preferences or expected risk. Therefore, guidelines could recommend the use of carefully developed patient decision aids incorporating the calculation of an individual benefit harm balance to guide patient-centered decision making for preference-sensitive decisions.