



Public versus patient health preferences: protocol for a study to elicit EQ-5D-5L health state valuations for patients who have survived a stay in intensive care

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#### Introduction

The value set used when calculating quality-adjusted life years (QALYs) is most often based on stated preference data elicited from a representative sample of the general population.

However, having a severe disease may alter a person's health preferences, which may imply that, for some patient groups, experienced QALYs may differ from those that are estimated via standard methods.









#### Objective

This study aims to elicit EQ-5D-5L valuations based on preferences elicited from a sample of patients who have survived a stay in a Danish intensive care unit (ICU) and to compare these with the preferences of the general population.

Further, the heterogeneity in the ICU patients' preferences will be investigated.

We aim to

- generate patient-specific preferences (time trade off interviews with 300 ICU patients)
- compare those with the public preferences
- investigate the differences

## <u>Methods</u>

This study will elicit EQ-5D-5L health state preferences from a sample of 300 respondents enrolled in two randomised controlled trials at Danish ICUs. Patients' preferences will be elicited using a composite time trade-off based on the EuroQol Valuation Technology (EQ-VT), the same as that used to generate the EQ-5D-5L value set for the Danish general population.

The patient-based and the public-based EQ-5D-5L valuations will be compared. Potential underlying determinants of the ICU preferences will be investigated through analyses of demographic characteristics, time since the ICU stay, self-reported health, willingness to trade-off length of life for quality of life, health state reference dependency, and EQ-5D dimensions that patients have experienced themselves during their illness.

# Key points

- EuroQol's recommendations for the EQ-VT protocol will be followed with a few exceptions due to practical limitations when enrolling patients.
- To limit the interview burden for the patient and to allow time for additional questions, the scope of the valuation study is limited to a composite time trade-off
- Additional questions are included to offer possible explanations for the potential differences between the preferences of the ICU patients and the general population.

## References

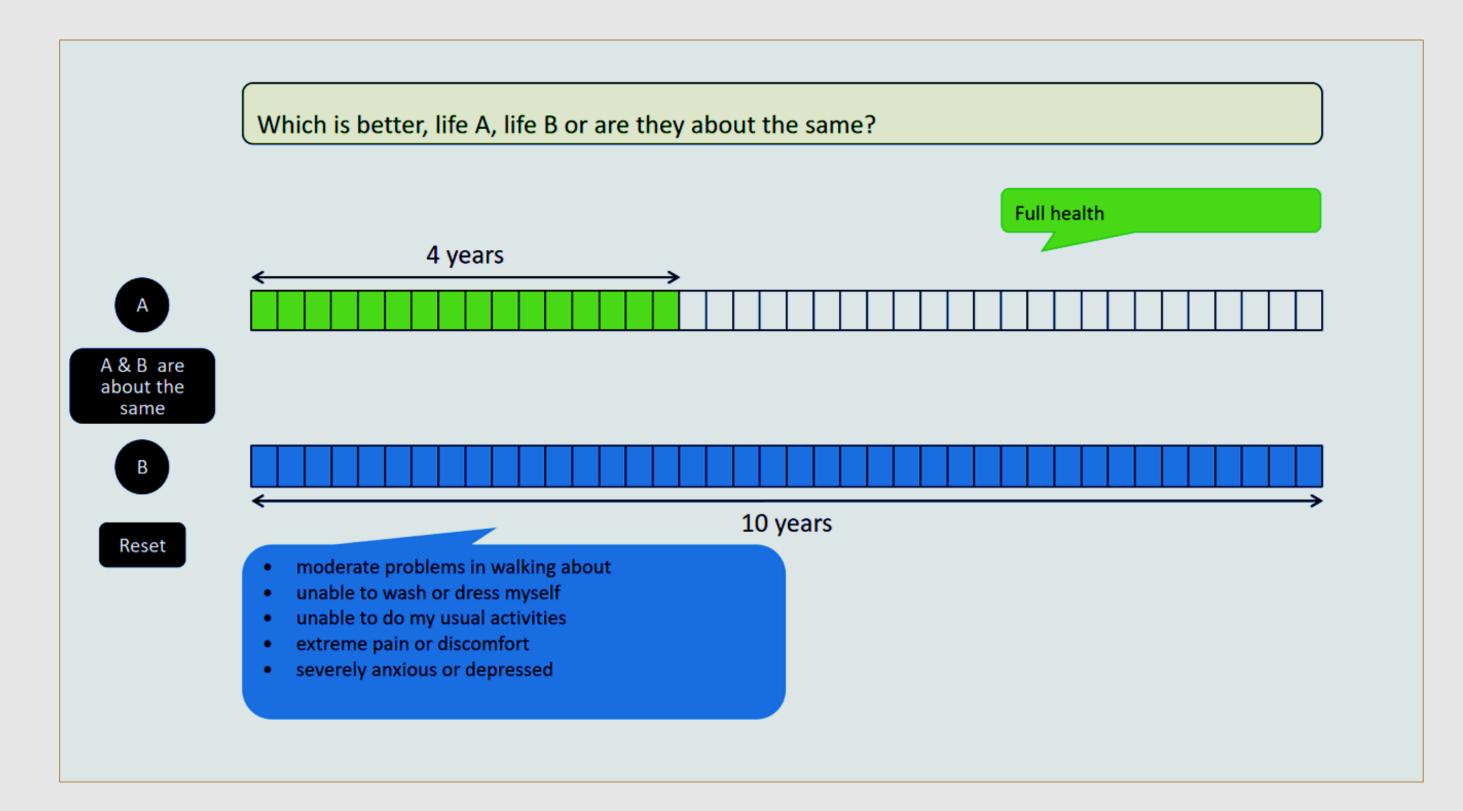
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### Standard EQ-VT protocol vs EQ-VT protocol with 15 states

	STANDARD EQ-VT PROTOCOL	EQ-VT PROTOCOL WITH 15 STATES
Blocks	10	6
Health states in each block	10	15
Number of respondents	1,000	300
Number of respondents per health state	100	50
Number of responses	10,000	4,500
Health states valued directly	86	86
Health states values modelled	(3,125-86) = 3,039	3,039

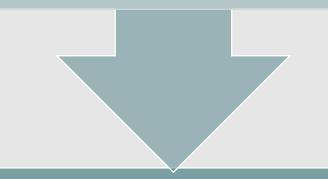
## Illustration of Time Trade Off



## How to calculate QALYs?

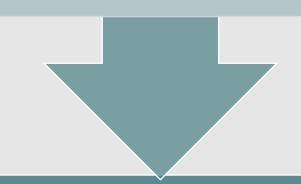
1) Health-related quality of life (HRQoL) questionaire

E.g., EQ-5D, SF-36 or EORTC QLQ-C30



2) Quality weights representing the preferences for different health states

Public-based or patient-based preferences



3) Combining the above with length of life or time spent in the particular health state creates QALYs

One QALY is defined as the value of one year in perfect health One year in a health state worse than perfect will result in a QALY less than 1

# Future perspectives

This study may enable us to test the effect of using the patients' valuations in economic evaluations. If the study finds no significant differences between the valuation of ICU patients and the general population, the existing practice of cost-utility analysis based on public-based valuations will be supported.

On the other hand, if the preferences of this patient group are different to public preferences, then the QALYs calculated—and hence the treatment decisions made for this patient group—may not reflect what the patients prefer. In that case, the current practice may lead to sub-optimal allocation of resources