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Utility Values Associated with Atypical Hemolytic Uremic Syndrome-related Attributes: A Discrete Choice Experiment in Five Countries

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Online Resource 1 Sample choice set included in the DCE survey

Please imagine that you have been told that you have XMX and you need to start a treatment. For each choice below, please indicate whether you prefer Treatment A or B.

	Treatment A	**Treatment B**
Life expectancy Effectiveness of the treatment in terms of reduced overall length of life	**Life expectancy reduced by 10 years**	**Life expectancy reduced by 4 years**
Administering frequency Treatment is via intravenous infusion into your arm	Treatment is **every 2 weeks (26 times per year)**. It is delivered **at home** and takes around **1 h**	Treatment is **every 8 weeks (6–7 times per year)**. It is delivered **at home** and takes around **3 h**
Treatment risks Risk of developing meningitis	Over the next 2 years, 1 additional person in 100 (1%) will develop meningitis **(moderate risk)**	Over the next 5 years, 1 additional person in 100 (1%) will develop meningitis **(low risk)**
Need for hospitalization Number of days spent in hospital because you have become very ill due to your disease	You are **not** admitted to hospital in the next year	You are admitted to hospital once in the next year. You are in **intensive care for 8 days**, followed by **3–5 days on a general ward**
Risk of impaired kidney function	You have a 5% (1 in 20) chance of **kidney failure** (loss of all kidney function) in the next year. You would experience tiredness, headaches, nausea, and vomiting. You would need dialysis at the hospital 3 times per week	You have a 5% (1 in 20) chance of **moderate kidney damage** in the next year. You would experience tiredness, back pain, and poor sleep. You would not need dialysis

Which treatment do you prefer? *Please select A or B*

A ☐ **B** ☐

DCE discrete choice experiment

Online Resource 2 Interaction analysis for Sweden: interaction of distance from a hospital with treatment administration frequency

Because treatment in Sweden is administered in a hospital rather than at home, interaction analyses were conducted to explore whether distance from hospital (≤ 50 km vs > 50 km) influenced preferences for treatment administration frequency. Main effects for the frequency of treatment administration were calculated, which represent the coefficient when the distance is at the reference level (i.e. ≤ 50 km). The interaction terms investigate how the coefficient for the main effects would change for those who live further from a hospital (> 50 km).

Of participants resident in Sweden, 93.1% (n = 443) lived ≤ 50 km from the nearest hospital, while 4.6% (n = 22) lived > 50 km away (2.3% [n = 11] answered that they did not know the distance). The results from the interaction analysis showed that the interaction effects were significant (p = 0.01) for treatment administration every 8 weeks for 1 h (**Table**). The interaction terms (sum of the main effects coefficient and interaction coefficient) were positive, suggesting that respondents who live further from a hospital have a stronger preference for less frequent treatment administration.

Sweden

Frequency of treatment administration	**Coefficient (95% CI)**	**OR (95% CI)**	***p* value**
Interaction effects *(Ref: Every 2 weeks, 1 h × ≤ 50 km from hospital)*			
Every 8 weeks, 3 h × > 50 km from hospital	0.530 (−0.138, 1.198)	1.699 (0.871, 3.314)	0.120
Every 8 weeks, 1 h × > 50 km from hospital	0.835 (0.196, 1.475)	2.305 (1.216, 4.370)	0.010
Main effects *(Ref: Every 2 weeks, 1 h)*			
Every 8 weeks, 3 h	0.380 (0.234, 0.526)	1.462 (1.263, 1.691)	< 0.001
Every 8 weeks, 1 h	0.617 (0.493, 0.741)	1.853 (1.637, 2.099)	< 0.001

CI confidence interval, *OR* odds ratio, *Ref* reference level

Online Resource 3 Interaction analysis for Canada: interaction of geographic location with treatment administration frequency

Because Quebec has a different HTA body from the rest of Canada, interaction analyses were conducted to explore whether participant geographic location (Quebec vs rest of Canada) had an influence on preferences for treatment administration frequency. The main effects for the frequency of treatment administration represent the coefficient when the location is at the reference level (i.e. not Quebec). The interaction terms investigate if the coefficient for the main effects is changed for those who live in Quebec.

Of participants resident in Canada, 22.1% (n = 104) lived in the province of Quebec. The results from the interaction analysis showed that the interaction effects were significant for treatment administration every 8 weeks for 3 h and treatment administration every 8 weeks for 1 h (both $p < 0.05$). The interaction terms (sum of the main effects coefficient and the interaction coefficient) were negative, suggesting that respondents who were not from Quebec had a stronger preference for less frequent treatment administration.

Canada			
Frequency of treatment administration	**Coefficient (95% CI)**	**OR (95% CI)**	***p* value**
Interaction effects *(Ref: Every 2 weeks, 1 h × not Quebec)*			
Every 8 weeks, 3 h × Quebec province	−0.397 (−0.786, −0.009)	0.672 (0.456, 0.991)	0.045
Every 8 weeks, 1 h × Quebec province	−0.531 (−0.836, −0.226)	0.588 (0.434, 0.798)	0.001
Main effects *(Ref: Every 2 weeks, 1 h)*			
Every 8 weeks, 3 h	0.078 (−0.093, 0.249)	1.081 (0.911, 1.283)	0.373
Every 8 weeks, 1 h	0.384 (0.241, 0.527)	1.468 (1.273, 1.694)	< 0.001

CI confidence interval, *HTA* health technology assessment, *OR* odds ratio, *Ref* reference level