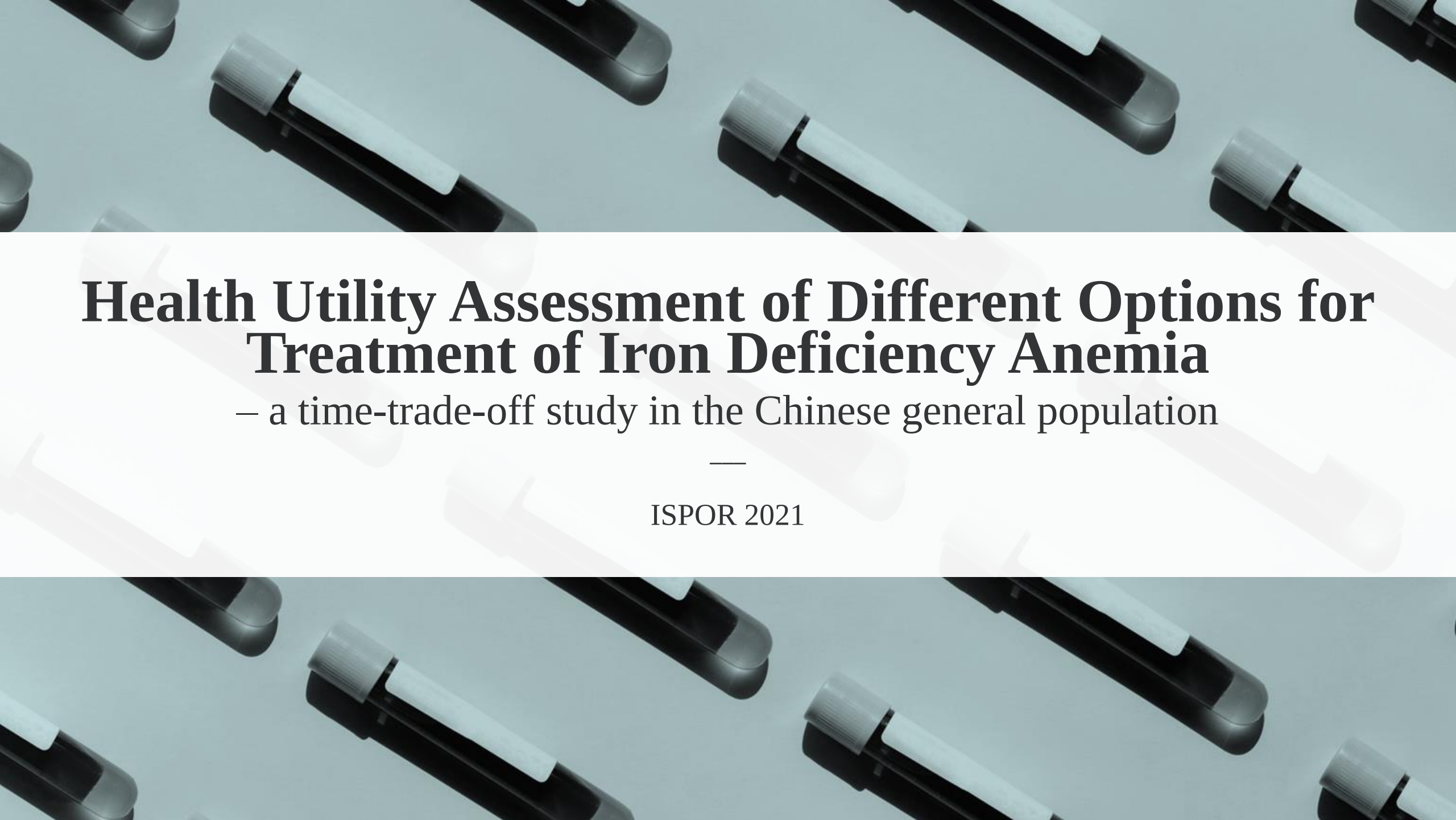


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Health Utility Assessment of Different Options for Treatment of Iron Deficiency Anemia

— a time-trade-off study in the Chinese general population

ISPOR 2021

*The presenter, Professor Yabing Zhang has no
conflicts of interests to declare*

Presenter

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Session

Podium Pre-release Session

- 01** Background
- 02** Methodology of TTO analysis
- 03** Applied health states
- 04** Statistical analyses
- 05** Results
- 06** Strengths and limitations
- 07** Conclusion

Background

Differences in treatment modality are likely to influence patients' preferences towards different treatments of iron deficiency anemia.



Frequency
of infusions



Duration
of infusions



Safety profile
of infusions

Objective

To investigate the preferences among the general Chinese population for different IV iron treatment options.

Iron deficiency

Symptoms of iron deficiency

Physical and mental fatigue

Heavy breathing

Dizziness

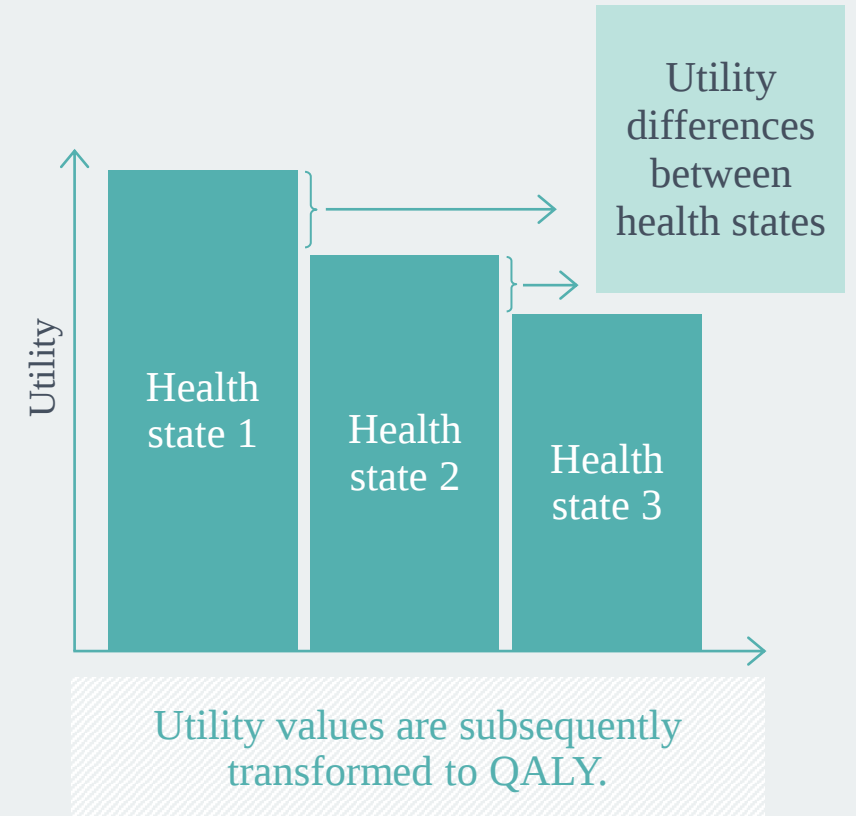
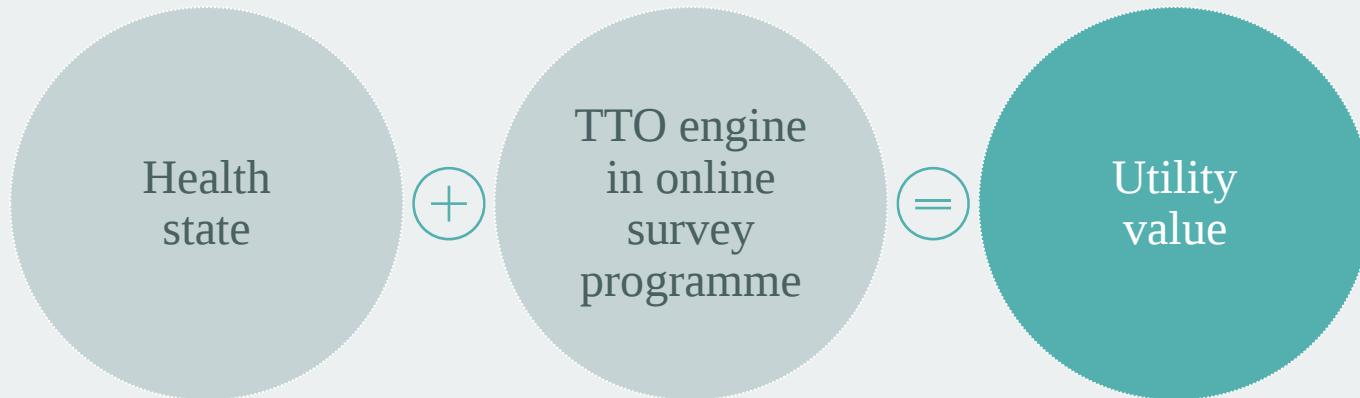
Treatment of iron deficiency

Intravenous iron administered at a larger hospital

Available treatment options have varying administration

The Time Trade-Off Method

Utility values can be elicited via TTO studies by defining a health state and using the TTO methodology until the point of indifference is found between a life with disease and a life in full health.



Health States

The study included seven health states that differed regarding the duration, the frequency and the risk profile of the infusions.

	HS 1	HS 2	HS 3	HS 4	HS 5	HS 6	HS 7
Infusion frequency	 1	 2	 5	 7	 1	 2	 2
Infusion duration	 30-60 min	 30-60 min	 30-60 min	 30-60 min	 15-30 min	 15-30 min	 15-30 min
Long-term side effects	No risk	No risk	No risk	No risk	No risk	No risk	Risk

Statistical analyses



A mean utility value was assigned to each health state based on each individual response.



Non-parametric bootstrapping was used to simulate standard errors and confidence intervals for the mean TTO values.



Relevant health states were compared to derive a utility difference.

Results

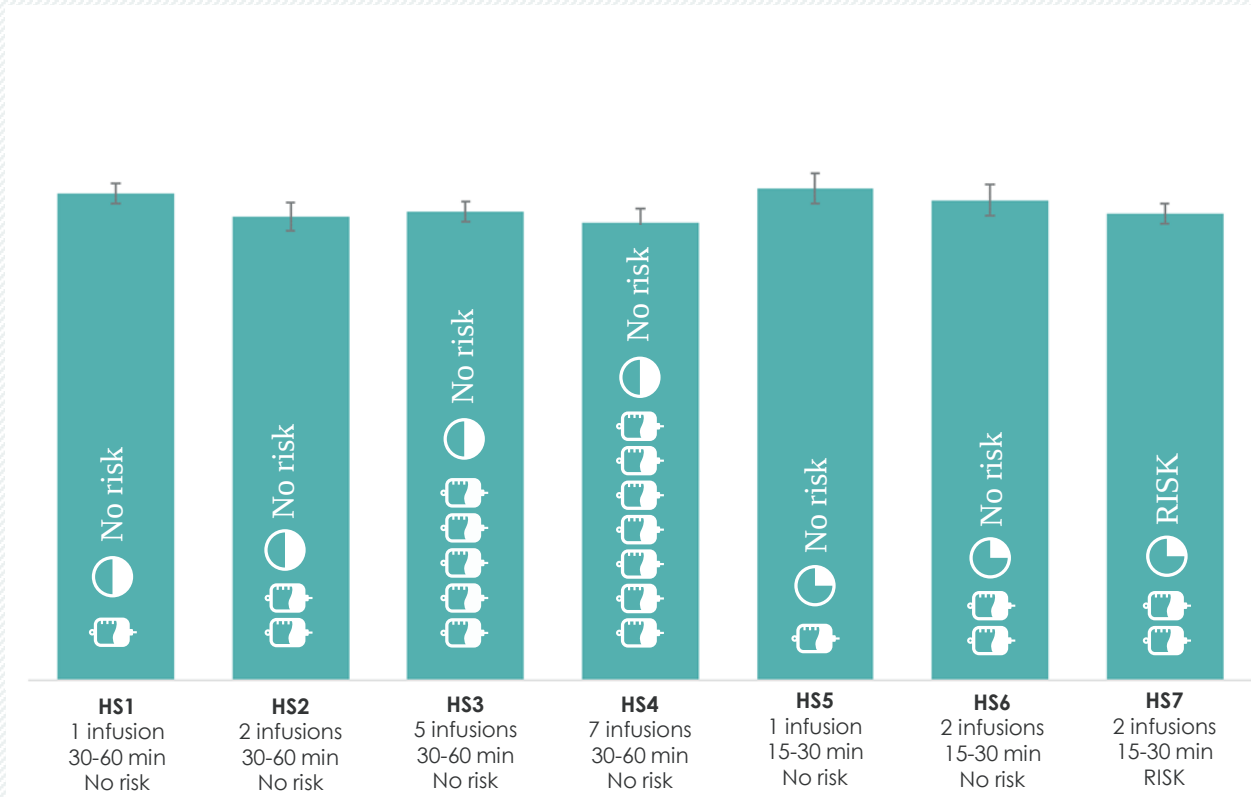


Figure notes: Mean utility value associated with each health state
Respondents: 1,091

Mean Utility Values

- Health State 5 is preferred above the remaining health states.
- The Chinese general public favour fewer yearly infusions, shorter durations and no risk of severe side effects.

Results

Disutility

- Additional infusions are associated with a disutility between 0.017 (2 vs 1 infusion) and 0.039 (7 vs 1 infusion).
- Risk of long-term side effects are associated with a disutility of 0.016.

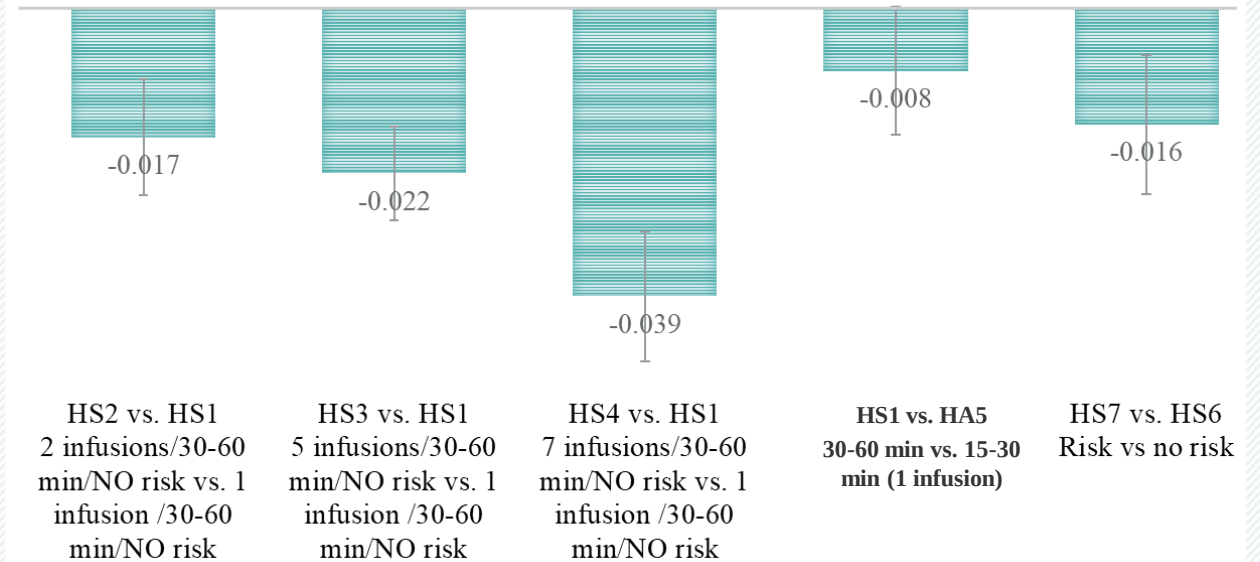


Figure notes: Utility difference and CI 95%

Strengths and limitations



Web-based

Improved respondent participation

Lack of help and clarifications



Respondents

Participation bias

Completion rate of 80.6%



Coding errors

Avoided with electronic data collection

Conclusion

Infusion frequency and the risk of serious long-term side effects significantly impact health-related quality of life.

Using TTO to understand treatment preferences creates an opportunity to supplement generic tools and clinical trials.



Prefer fewer
infusions



Prefer no risk of
long-term side effects

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