Simulator Choice experiment for ICU admission decision-making: Identifying preference patterns

This simulator has been developed based on the results from the Choice Experiment (CE) conducted as part of the NIHR funded project, "Exploring and Improving the decision making process around referral and admission to intensive care" (HS&DR 13/10/14). The CE requires participants to make a series of choices based on hypothetical patient profiles. Each patient profile includes eight patient related factors with a varying number of levels per factor. In each choice task, two hypothetical patient profiles were presented to the participants and they were asked three related questions: (i) would you admit patient A? (Yes/No); (ii) would you admit patient B? (Yes/No); (iii) which patient should be given priority for admission? (Patient A/B). We asked a sample of 303 ICU consultants to answer these choice questions.

Analysis of the consultants' decisions identified four distinct patterns of preferences for ICU admission:

- **Pattern 1: "Age-oriented decision-making"** – Consultants belonging to this group tend to give relatively more weight to patient's age compared to other factors;
- **Pattern 2: "Age-dominated decision-making"** – Consultants would base their admission decisions mainly on the patients' age;
- **Pattern 3: "Balanced decision-making"** - Consultants would give approximately the same importance to all patient-related factors;
- **Pattern 4: "Family-dominated decision-making"** – Consultants' admission decisions would be mainly driven by family's views regarding patient's admission (e.g., they insist for admission).

The objective of this simulator exercise is to determine which of these four patterns you are the more likely to belong to. You are asked to complete three choice tasks (derived from the choice experiment). Based on your answers to the choice questions and results from the study, the simulator will return (i) the preferences pattern that is the most likely to explain your decisions; (ii) the probably of belonging to this preferences pattern; and (iii) finally the relative importance given to the different patient factors.

Click on the link to access the simulator on the study website:
https://warwick.ac.uk/fac/med/research/hscience/sssh/research/intensive/icu_-_simulator_2_icu2018_v2.xlsx

An illustrative example is given below

TASK 1/3	Patient A	Patient B
age	39	79
como	copd + severe	cancer + moder
mob	good	bad
news	8	11
look	good	bad
safe	good	bad
fami	yes	no

Admit patient A?	Yes	
Admit patient B?	No	
Which patient in priority?	Patient A	

Given your answers:	
Class	Age-dominant decision making
Prob	41%