**Supplementary file 2.** Linear mixed effect models (the clinical scenarios were taken as random effects) were used to investigate the potential links between the bias and following covariates:

- average SAPS II score measured in the ICU in year 2011
- number of patients per year
- number of senior physicians (full time equivalents)
- number of beds per unit (<8, 9-15, and >15)
- number of residents during the day shift (≤1, >1 and ≤2, and >2)
- presence of a dedicated ICU resident during the evening and night shifts
- linguistic regions (German, French, and Italian)
- ICU affiliation within the health structure (independent, affiliated to the department of Anaesthesia, Internal Medicine, others)
- profession of study participant (senior physician, resident physician, registered nurse with certificate for critical care nursing, others)
- initial SAPS II training (instruction from colleague, structured training, others)
- experience with SAPS II (<3 months, 3-12 months, and >12 months)
- method used for scoring (by heart, chart research of all variables, or mixture of both)
- data acquisition method in the unit (automatic versus manual)
- periodicity (daily, every week, or less than once per week),
- presence of a quality control system
- presence of a feedback procedure