Supplement 1

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Supplemental material

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1. **Survey Questionnaire**

Questions on treatment-specific risk literacy (answers in bold are the correct answers)

- Which of the following statements do you think enables you to predict most reliably whether the new medication is better than the older one? (Based on Caverly et al. 2015)
  A) A large randomized trial showed that out of 33 patients who received the new medication, only one died of the disease.
  B) Of the patients who received a new medication in a large randomized trial, about 33% fewer died of the disease compared to patients who received the older medication.
  C) Of the patients who received a new medication in a large randomized trial, 6 out of 100 patients died of the disease. In the group of patients who received the older medication, 9 out of 100 died of the disease.
  D) I don't know for sure.

- Which of the following statements best proves that a new medication has greater benefits for patients? (Based on Caverly et al. 2015)
  A) A large randomized trial showed that patients on the new medication had considerably fewer strokes than patients on the older medication.
  B) A large randomized trial showed that cholesterol levels, which can indicate an increased risk of stroke, were significantly lower in patients on the new medication than in patients on the older medication.
  C) A large randomized trial showed that patients on the new medication had a significantly lower rate of increased risk factors for a stroke compared to those on the older medication.
  D) I don't know for sure.

- In a multicentre study aiming to investigate the effectiveness of two diabetes screening programmes, the cut-off for an abnormal fasting blood glucose is ≥ 6 mmol/l in Programme A and ≥ 7 mmol/l in Programme B. (Based on Caverly et al. 2015)
  This means:
  A) Approximately the same number of patients will be diagnosed with diabetes in both programmes.
  B) Programme A will have more false positive diagnoses than Programme B.
  C) Programme B will have more false positive diagnoses than Programme A.
  D) I don't know for sure.

- Of 1,000 people with Disease X, 300 experience a particular severe symptom. A new treatment is found to reduce the chance that a person with Disease X will experience the severe symptom by 33%. How many out of 1,000 people with Disease X who use the drug will still experience the severe symptom? (Based on Anderson et al. 2014)

A) 200
B) 333
C) 100
D) I don't know for sure.

- Among your patients, 25% have a particular condition during pregnancy. Among women who have this condition during pregnancy, 60% will need to remain in the hospital longer due to complications. Your patient asks you how many of 100 pregnant patients have to stay longer in the hospital for complications caused by the particular condition. What should you say? (Based on Anderson et al. 2014)
  A) 25
  B) 15
  C) 60
  D) I don't know for sure.

- In a sample of 100 women, 30 are given a particular treatment. One in three women who are on that treatment have blood clots. What percent of that sample of 100 women are on the treatment and have blood clots? (Based on Anderson et al. 2014)
  A) 33%
  B) 3%
  C) 10%
  D) I don't know for sure.

- What is the number needed to treat (NNT) in the following scenario? 10,000 hypertensive patients were randomly assigned either drug (n = 5,000) or placebo (n = 5,000). There were 185 deaths in the drug group and 210 in the placebo group. (Based on Anderson et al. 2014)
  A) About 25
  B) About 200
  C) About 400
  D) I don't know for sure.

Questions on conflicts of interest

- How often have you been visited by pharmaceutical sales representatives during the last 12 months? (daily, 2–3 times per week, once per week, twice per month, once per month or less, never)

- Do you receive adequate and accurate information about new drugs and therapies from pharmaceutical sales representatives? (regularly, sometimes, never)

- Do you feel that your prescribing behavior influenced by pharmaceutical sales representatives? (regularly, sometimes, never)

- Have you given paid interviews to pharmaceutical sales representatives about your prescribing behavior or new therapies? (regularly, sometimes, never)

- Have you accepted gifts from pharmaceutical sales representatives during the last 12 months? (regularly, sometimes, never)

- [If regularly or sometimes]: Which gifts offered by pharmaceutical sales representatives have you accepted during the last 12 months?
  - Office stationery (e.g., ballpoint pens, note pads)
  - Day-to-day items (e.g., coffee cups, diaries, calendars)
  - Drug samples
  - dinner invitations
  - Sponsored Continuing Medical Education (CME) events
  - Other

Questions on the benefit-harm-assessment within non-evidence-based prescription settings

- When you think of prescribing benzodiazepines to patients who are experiencing insomnia, which of the following statements do you feel best describes the benefit-to-harm ratio?
  - The benefits of benzodiazepines clearly outweigh their harms.
  - The benefits of benzodiazepines somewhat outweigh their harms.
  - The benefits and harms of benzodiazepines are balanced.
  - The harms of benzodiazepines somewhat outweigh their benefits.
  - The harms of benzodiazepines clearly outweigh their benefits.

- When you think of prescribing antibiotics to patients who have acute otitis media, which of the following statements do you feel best describes the benefit-to-harm ratio?
  - The benefits of antibiotics clearly outweigh their harms.
  - The benefits of antibiotics somewhat outweigh their harms.
  - The benefits and harms of antibiotics are balanced.
  - The harms of antibiotics somewhat outweigh their benefits.
  - The harms of antibiotics clearly outweigh their benefits.

- When you think of prescribing strong opioids (step 3 WHO analgesic ladder) to patients who have had noncancer chronic pain for longer than 3 months, which of the following statements do you feel best describes the benefit-to-harm ratio?
  - The benefits of strong opioids clearly outweigh their harms.

- The benefits of strong opioids somewhat outweigh their harms.
- The benefits and harms of strong opioids are balanced.
- The harms of strong opioids somewhat outweigh their benefits.
- The harms of strong opioids clearly outweigh their benefits.

2. Prescribing volumes according to openprescribing.net documentation

Drug (group)	Definition of Prescribing Volume 2nd Semester 2022
Antibiotics	Number of prescription items for all antibacterial drugs
Opioids	Total opioid prescribing (as oral morphine equivalence)
Benzodiazepines	Number of average daily quantities (ADQs) of Anxiolytics and Hypnotics
Gabapentin	Total daily defined doses (DDD) of pregabalin and gabapentin

3. Distribution of the correct answers for the seven risk literacy questions across the 304 English general practitioners

The distribution of the correct answers (scores) on the seven risk literacy questions is as follows:

Number of correct answers	0	1	2	3	4	5	6	7
Number of GPs providing that number of correct answers	9	16	37	54	56	75	41	16

4. **Demographic comparison between study sample and general population of general practitioners in England**

	Total Sample (N = 304)	General Population of English GPs
	Sample Size (%)	
Years of Experience, *n* (%)[b]		
< 10 years	63 (20.7)	21.7%
10–19 years	116 (38.2)	41.5%
20–29 years	75 (24.7)	23.3%
30–39 years	40 (13.2)	11.4%
≥ 40 years	10 (3.3)	2.6%