

Likelihood of Help vs Harm

During your discussion with the patient about the consequences of a stroke, gastrointestinal bleeding, and regular monitoring of anticoagulant use, you asked him to use the “feeling thermometer” (see [Figure 2F-1](#)) to estimate how he feels about each of these events. He is not concerned at all about the required laboratory monitoring, but places a value of living with a stroke at 0.2 and of living with a gastrointestinal bleed at 0.8. You use these to calculate his likelihood of being helped or harmed (LHH) from warfarin therapy vs aspirin therapy.

Using the NNTs calculated in the scenario, the LHH from warfarin vs aspirin becomes:

$$\text{LHH} = (1/\text{NNT}) : (1/\text{NNH})$$

(Note: we could also use [absolute risk reduction] : [absolute risk increase] but this uses decimal fractions and may increase the likelihood of arithmetic errors.)

$$\text{LHH} = (1/83) : (1/125)$$

$$= 1.5 : 1$$

Therefore, you can tell the patient that warfarin is approximately twice as likely to help him as to harm him, when compared with aspirin.

Incorporating his values that you elicited, the LHH becomes:

$$\text{LHH} = (1/\text{NNT}) \times (1 - U_{\text{event}}) : (1/\text{NNH}) \times (1 - U_{\text{toxicity}})$$

$$= (1/83) \times (1 - 0.2) : (1/125) \times (1 - 0.8)$$

$$= 6 : 1$$

And you can now inform the patient that warfarin is approximately eight times as likely to help him as to harm him.

Alternatively, a quicker way of incorporating the patient's values is to ask the patient to rate one event against another. For example, is the adverse effect about as severe as the event the treatment prevents -- or 10 times as bad or only half as severe? This rating ("s") can then be used to adjust the LHH as:

$$\text{LHH} = (1/\text{NNT}) \times s : (1/\text{NNH}).$$

FIGURE 2F-1

Visual Analogue Scale as a "Feeling Thermometer"

