

# POEMs

## Patient-Oriented Evidence that Matters

*I have always believed that the way in which risk is presented influences patients' decision making. Disclosing a serious risk of 1% somehow seems greater than advising that 99 times out 100 there will be no problem. However, this is the first research paper that I have seen that supports this belief. Editor.*

### Clinical question

Do patients make decisions differently depending on how benefits of treatment are presented?

### Bottom line

Using hypothetical scenarios of taking drugs to prevent either heart attack or hip fracture, patients were more likely to consent to treatment if the information was couched in terms of prevention of disease (using number needed to treat). They were less likely to consent to treatment if the value of the drug was presented as a postponement of disease (using disease-free interval). In other words, presenting the same information in different ways drastically affected patients' perceptions. Unfortunately, the study doesn't tell us which therapy is the right one to use; it just shows us that patients will use preventive therapy more often if numbers needed to treat are used to present the benefit. (LOE=1b)

### Reference

Halvorsen PA, Selmer R, Kristiansen IS. Different ways to describe the benefits of risk-reducing treatments. A randomized trial. *Ann Intern Med* 2007; 146:848–856.

### Study Design

Cross-sectional

### Funding

Self-funded or unfunded

### Setting

Population-based

### Synopsis

To determine how patients will respond to different types of risk estimates, the authors developed two hypothetical scenarios. One scenario presented the effectiveness of drug therapy in patients at risk for heart attack to 1754 people at high or low cardiovascular risk; the second scenario presented data on hip fracture prevention to 1000 persons taking part in a regional health survey. The patients were randomly assigned to receive information in one of three ways: (1) prevention, using number needed to treat (e.g. 13 patients have to take a drug for five years to prevent a heart attack); or postponement using either (2) a short average disease-free interval (e.g. patients will live approximately two months longer) or (3) a longer survival for some patients (e.g. one in four patients who take the drug for five years will live approximately eight months longer). Response rates to this mailed survey were 80% or better in both groups. These estimates were all drawn from the same data and thus are different ways of presenting the same outcomes. Patients were more likely to consent to therapy if given the information as a number needed to treat. The least likely to consent were patients given the average disease-free interval. For the heart attack scenario, 93% of patients presented with number needed to treat data consented, 82% who were presented with the outcome of a large postponement for all patients, and 69% of patients who were presented with a short postponement of all patients ( $P < .001$ ). In the hip fracture scenario, the consent rates were 74%, 56%, and 34%, respectively ( $P < .001$ ).