

New!

Talking to your Patients



Risky Business: Weighing the Risks of Therapy with Your Patient

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Why does style matter?

Several researchers have found that the methods in which physicians present information to their patients significantly affects patient decision-making (Table 1). In a survey, patients were given information about the benefits of screening for cancer. They were provided the same information in different formats. Respondents were most likely to accept the screening when presented with a relative risk reduction (the percentage of risk that would be reduced if patient was screened). Respondents were most likely to reject the screening when presented with numbers needed to treat.

Another study assessed how different formats

of identical data affected the readiness of 100 outpatients to take lipid-lowering drugs. When patients received information as relative risk reduction, 88% of the patients agreed to therapy, whereas all other formats obtained significantly more refusals. Even patients contemplating a surgical procedure are more likely to be influenced by the statement “surgery on your wrist will reduce the risk of a malunion by 70% compared to cast treatment.”

How are doctors at risk?

Just as patients are susceptible to framing effects, so too are physicians. For example, in a random sample of

Mrs. Wilson's Case

Mrs. Wilson, 61, fell on her outstretched right hand and is brought to the emergency room complaining of wrist pain.

Clinical examination suggests a wrist fracture and X-rays confirm your suspicions.

Her type of injury can be treated by one of two methods: casting or surgery. You also realise that Mrs. Wilson likely has osteoporosis that is currently untreated.

Given the important decisions ahead for your patient, you wonder how best to relay the risks and benefits of surgery versus casting?

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Table 1

Different Methods to Present Risks of Therapy

While physicians often use terms such as “improbable risk,” “small risk,” “greater risk,” and “high risk,” when referring to complications following a particular drug therapy or surgical intervention, more precise terms are available.

For example, the actual per cent risk of malunion (mal-positioning) with cast treatment versus surgery can be stated to patients as 10% versus 3%. Other ways to present this exact same information include:

1. The relative risk of having a malunion is 3.3 times greater with casting than with surgery ($10\% \div 3\%$).
2. Surgery can reduce the risk of having a malunion by 70% compared to casting ($[1-3/10] \times 100 = 70\%$).
3. The difference in malunion risk between casting and surgery is 7% (Absolute Risk Reduction = $10\% - 3\%$).
4. For every 14 patients treated with surgery compared to casts, one malunion can be prevented.
5. In 100 treated patients, there will be seven fewer patients with malunion.

802 internists and general practitioners in Switzerland, researchers found that the use of relative risk reduction in trial reports and advertisements affected physicians' views of the effectiveness of lipid-lowering drugs and their decision to prescribe such drugs. In fact, physicians were significantly less likely to believe the drugs were effective if the results published in studies were presented as a reduction of absolute risk or number needed to treat. Interestingly, media and pharmaceutical company information typically reports benefits of clinical trials in terms of relative risk reduction. 

References available on request at diagnosis@sta.ca.

What about Mrs. Wilson?

Mrs. Wilson requires information about the risks of casting versus surgery presented in light of the current evidence. Surgery may reduce the risk of malunion and subsequent need for re-operation, but also, has an increased risk of infection. Presenting the risks as “relative risk reductions,” may mislead the patient in her expectations of the benefits of one treatment over the other.

To avoid this misinformation, her physician should present the actual percentage risk in both treatment groups, in addition to the relative risk reduction. For example, Mrs. Wilson may want surgery if it significantly reduces the risk of malunion by 70%, especially if the individual risks are 50% (cast) versus 15% (surgery). However, if the same 70% risk reduction means a drop from a 1% risk (cast) to 0.3% risk (surgery), Mrs. Wilson's values and preferences may lead her to take a chance with casting and avoid surgery.

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