

## Overview of the Informed Health Choices Key Concepts

<h3>1. Claims</h3> <p><i>Claims about effects that are not supported by evidence from fair comparisons are not necessarily wrong, but there is an insufficient basis for believing them.</i></p>	<h3>2. Comparisons</h3> <p><i>To identify treatment effects, studies should make fair comparisons, designed to minimise the risk of systematic errors (biases) and random errors (the play of chance).</i></p>	<h3>3. Choices</h3> <p><i>What to do depends on judgements about a problem, the relevance of the available evidence, and the balance of expected benefits, harms, and costs.</i></p>
<p><b>1.1 Assumptions that treatments are safe or effective can be misleading.</b></p> <p>Do not assume that</p> <ol style="list-style-type: none"> <li>treatments are safe,</li> <li>treatments have large, dramatic effects,</li> <li>treatment effects are certain,</li> <li>it is possible to know who will benefit and who will be harmed, or</li> <li>comparisons are not needed.</li> </ol> <p><b>1.2 Seemingly logical assumptions about <u>research</u> can be misleading.</b></p> <p>Do not assume that</p> <ol style="list-style-type: none"> <li>a plausible explanation is sufficient,</li> <li>association is the same as causation,</li> <li>more data is better data,</li> <li>a single study is sufficient, or</li> <li>fair comparisons are not applicable in practice.</li> </ol> <p><b>1.3 Seemingly logical assumptions about <u>treatments</u> can be misleading.</b></p> <p>Do not assume that</p> <ol style="list-style-type: none"> <li>treatment is needed,</li> <li>more treatment is better,</li> <li>a treatment is helpful or safe based on how widely used it is or has been,</li> <li>a treatment is better based on how new or technologically impressive it is, or</li> <li>earlier detection of ‘disease’ is better.</li> </ol> <p><b>1.4 Trust based on the source of a claim alone can be misleading.</b></p> <p>Do not assume that</p> <ol style="list-style-type: none"> <li>personal experiences alone are sufficient,</li> <li>your beliefs are correct,</li> <li>opinions alone are sufficient,</li> <li>peer review and publication is sufficient, or</li> <li>there are no competing interests.</li> </ol>	<p><b>2.1 Comparisons of treatments should be fair.</b></p> <p>Consider whether</p> <ol style="list-style-type: none"> <li>the people being compared were similar,</li> <li>the people being compared were cared for similarly,</li> <li>the people being compared knew which treatments they received,</li> <li>outcomes were assessed similarly in the people being compared,</li> <li>outcomes were assessed reliably,</li> <li>outcomes were assessed in all (or nearly all) the people being compared, and</li> <li>people’s outcomes were analysed in the group to which they were allocated.</li> </ol> <p><b>2.2 Reviews of the effects of treatments should be fair.</b></p> <p>Consider whether</p> <ol style="list-style-type: none"> <li>systematic methods were used,</li> <li>unpublished results were considered,</li> <li>treatments were compared across studies, and</li> <li>important assumptions were tested.</li> </ol> <p><b>2.3 Descriptions of effects should clearly reflect <u>the size of the effects</u>.</b></p> <p>Be cautious of</p> <ol style="list-style-type: none"> <li>verbal descriptions alone of the size of effects,</li> <li>relative effects of treatments alone,</li> <li>average differences between treatments, and</li> <li>lack of evidence being interpreted as evidence of “no difference”.</li> </ol> <p><b>2.4 Descriptions of effects should reflect <u>the risk of being misled by the play of chance</u>.</b></p> <p>Be cautious of</p> <ol style="list-style-type: none"> <li>small studies,</li> <li>results for a selected group of people within a study,</li> <li>p-values, and</li> <li>results reported as “statistically significant” or “non-significant”.</li> </ol>	<p><b>3.1 Evidence should be relevant.</b></p> <ol style="list-style-type: none"> <li>Be clear about what the problem or goal is and what the options are. Consider the relevance of</li> <li>the outcomes measured in the research,</li> <li>fair comparisons in laboratories, animals, or highly selected people,</li> <li>the treatments that were compared, and</li> <li>the circumstances in which the treatments were compared.</li> </ol> <p><b>3.2 Expected advantages should outweigh expected disadvantages.</b></p> <ol style="list-style-type: none"> <li>Weigh the benefits and savings against the harms and costs of acting or not.</li> </ol> <p>Consider</p> <ol style="list-style-type: none"> <li>the baseline risk or severity of the symptoms when estimating the size of expected effects,</li> <li>how important each advantage and disadvantage is when weighing the pros and cons,</li> <li>how certain you can be about each advantage and disadvantage, and</li> <li>the need for further fair comparisons.</li> </ol>