


Recommendations

1. Anatomical images

	<p>Recommendation</p> <p>“Anatomical images may be used to supplement a text.”</p> <p>Agreed: 9, Disagreed: 0, Abstentions: 1</p> <p>Quality of the evidence: moderate quality</p>
<p>Comment on the recommendation:</p> <p>The recommendation refers to the comparison of text supplemented by anatomical images with text only.</p> <p>In this comparison, one study showed no effect for the cognitive outcomes <i>knowledge</i> and <i>comprehensibility / readability</i>. A positive effect for using anatomical images was found in one study each for the affective outcomes <i>acceptance / attractiveness</i> and <i>trust / credibility</i>.</p>	

Summary of the findings


Characteristics of the included studies

In this comparison two studies were included. In a study in the Netherlands, 143 bowel cancer patients with an average age of 68 years were investigated (1). The intervention consisted of anatomical images about an endoscopic method of operation and about how to insert a stoma. An online study in Great Britain (n=901, average age 27 years) showed the effect of using MRT images to supplement personalized details concerning cardiovascular risk (7).

Results for the relevant outcomes

For the outcomes *knowledge* and *understanding* no effect was shown when anatomical images were used in health information (1). Positive effects were shown for the outcomes *acceptance / attractiveness* when anatomical images were used (1, 7).

2. Cartoons

	<p>Recommendation</p> <p>“Cartoons may be used to supplement a text.”</p> <p>Agreed: 9 Disagreed: 0, Abstentions: 1</p> <p>Quality of the evidence: high quality</p>
<p>Comment on the recommendation:</p> <p>The recommendation refers to the comparison of text supplemented by cartoons with text only.</p> <p>In this comparison, positive effects for using cartoons could be shown in a single study with regard to the cognitive outcomes <i>understanding</i> and <i>comprehensibility / readability</i> as well as to the affective outcomes <i>acceptance / attractiveness</i>.</p>	

Summary of the findings

Characteristics of the included studies

For this comparison a single study was included that had been carried out in a clinic in the USA with 205 young adults (average age 21 years) who had been to the A&E for wound treatment (8). The intervention consisted of instruction in the care of wounds that was illustrated by a cartoon.

Results for the relevant outcomes

A positive effect for using illustrative cartoons was found for the outcomes *understanding, comprehensibility / readability* and *acceptance / attractiveness* (8).

3. Photos

	<p>Recommendation</p> <p>“No recommendation can be made for the use of photos.”</p> <p>Agreed: 10, Disagreed: 0, Abstentions: 0</p> <p>Quality of the evidence: moderate quality</p>
	<p>Comment on the recommendation:</p> <p>For the comparison of text supplemented by photos with text only no recommendation can be made.</p> <p>In a single study, no effects could be shown for the outcomes <i>knowledge</i> and <i>comprehensibility</i> / <i>readability</i> or for the affective outcomes <i>acceptance</i> / <i>attractiveness</i>. The huge heterogeneity of photos and their applicability makes the transferability of these results disputable.</p>

Summary of the findings


Characteristics of the included studies

A single study was included for this comparison in which 143 patients with bowel cancer and an average age of 68 years were examined in the Netherlands (1). The intervention consisted of information concerning an endoscopic operating method that was supplemented by affective illustrations in the form of photos showing professional staff (e.g. physicians or nurses) with and without patients.

Results for the relevant outcomes

For the outcomes *knowledge*, *comprehensibility* and *acceptance* / *attractiveness* no effect was shown for the use of supplementary photos (1).

4. Pictograms

	<p>Recommendation</p> <p>“Pictograms may be used to supplement a text.”</p> <p>Agreed: 9, Disagreed: 0, Abstentions: 1</p> <p>Quality of the evidence: moderate quality</p>
<p>Comment on the recommendation:</p> <p>The recommendation refers to the comparison of an informative text supplemented by pictograms (icons, symbols) with the informative text only.</p> <p>For this comparison positive effects for using pictograms could be seen for the cognitive outcomes <i>understanding</i> (in two out of three studies), <i>knowledge</i> (in one out of four studies) and <i>comprehensibility / readability</i> (in one out of two studies). In the other studies no effects were found for the cognitive outcomes, but for the affective outcomes <i>acceptance / attractiveness</i> positive effects were found for the use of pictograms in two studies.</p>	

Summary of the findings


Characteristics of the included studies

For this comparison five studies with a total of 661 participants were included, who were mostly adults between 20 and 40 years of age from the USA (3, 10, 11), Canada (10), Ireland (9) and South Africa (5). Three studies included in particular people with a low standard of education (3, 5, 10) or where English was their second language (5). In all of the studies the intervention consisted of an instruction about correct administration and dosing of medications, illustrated with pictograms with varying degrees of schematization.

Results for the relevant outcomes

For the outcomes *understanding*, *knowledge* and *readability* no clear effect could be seen for supplementary pictograms (3, 5, 9-11), but for the outcomes *acceptance / attractiveness* a positive effect was found for using supplementary pictograms (5, 10).

5. Illustrative drawings

	<p>Recommendation</p> <p>“Illustrative drawings can be used to supplement a text.”</p> <p>Agreed: 9, Disagreed: 0 Abstentions: 1</p> <p>Quality of the evidence: moderate quality</p>
<p>Comment on the recommendation:</p> <p>The recommendation refers to the comparison of text supplemented by illustrative drawings with text only.</p> <p>For this comparison a positive effect for using illustrative drawings was seen in two out of four studies with regard to the cognitive outcome <i>understanding</i>. In the other two studies either no effect or no clear effect was found. Regarding the cognitive outcomes <i>knowledge</i> and <i>readability</i> no effect could be seen in one respectively two studies. No studies concerning the affective outcomes could be included.</p>	

Summary of the findings

Characteristics of the included studies

For this comparison five studies were included that had a certain heterogeneity (4, 12-15). The interventions consisted of health information on various subjects (i.e. a guide for inhalation or wound treatment, screening, risks of operations) that had been supplemented by illustrative drawings. The term “drawings” here combines different types of illustrations that sometimes cannot be clearly differentiated from cartoons, pictograms or anatomical images. They were used to visualize instructions (12, 14), to illustrate medicinal concepts (4) and to improve understanding for benefit-risk communication (13, 15). A total of 372 participants with an average age between 20 and 72 years took part and included patients of both sexes (12, 15) as well as healthy people. The investigations were carried out in the USA (4, 12), Canada (15), Great Britain (13) and in the Netherlands (14). One study (15) examined particularly the effect depending on the level of education and in a further study the age of the participants was focused on (4).

Results for the relevant outcomes

For the outcomes understanding, knowledge and comprehensibility / readability no effect or no clear effect was seen for using illustrative drawings (12, 13). No results are available concerning the affective outcomes.

Research needs

On the whole, no clear recommendations could be made with regard to pictures and drawings. For three of the five questions, only one study for each question could be included so it was not possible to generalize the findings. Precisely because of the diversity of the representations, further studies will be required on the various forms of presentation, especially with regard to the effect of photos. In addition, it should be examined to what extent photos can have a persuasive effect. This aspect seems to be important because photos are used purposely because of their affective impact (1).