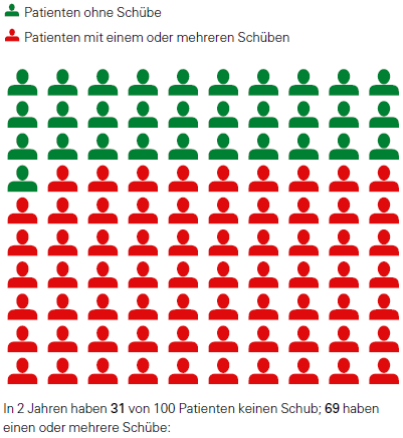
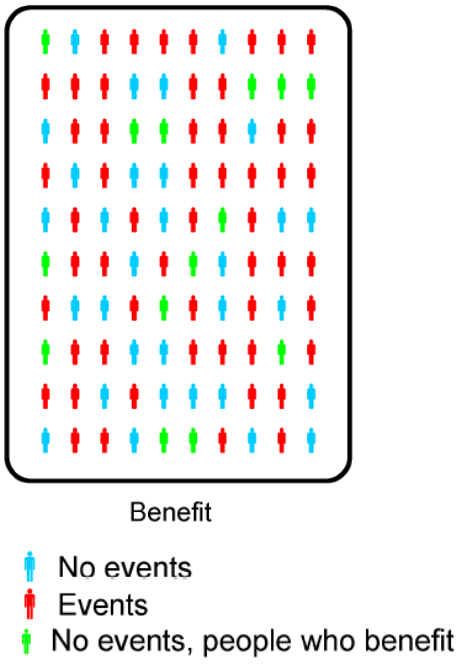
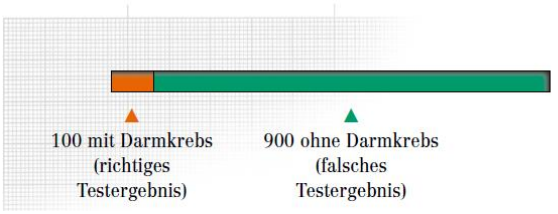
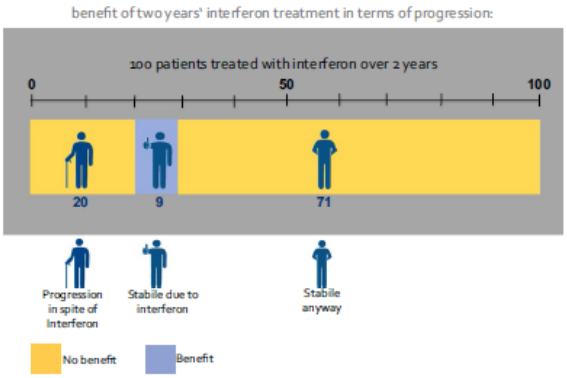
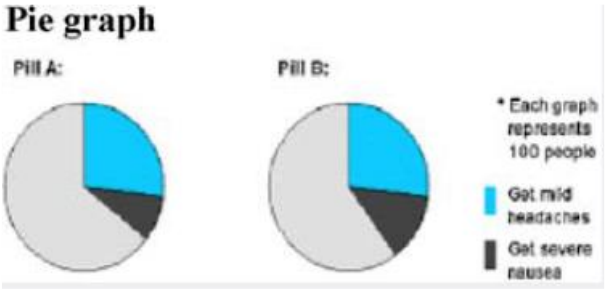
2.2.4 Using graphics

Introduction

If data with a quantative statement are underlined visually, the viewer finds it easier to understand the contents. Graphic illustrations may help providing the numerical presentation with a meaningful supplement. However, graphics should be presented in a way that is easy to understand (1, 2), making a realistic assessment of risks, benefits and harm of preventive, diagnostic and therapeutic measures possible. Detailed graphics, comprehensive legends and suitable scale inscriptions enable a statement to be quickly understood (1). Nevertheless, graphics are not always interpreted in the way the data provider intends (1). Several fields of science, i.e. psychology, medicine, health sciences and market research, are investigating how the type of graphic used can lead to a better understanding of the intended statement. There are various types of graphic in use. Pictograms, bar charts and pie charts are used particularly for transmitting health information (cf. Table 9). For instance, pictograms can be deployed in many variations to provide simple, combined or animated presentations. Diagrams are portrayed mostly as bar or pie charts. The following explanations show the effects that visual enhancement of text statements can have on the reader.

Table 9: Summary of types of graphic

Pictograms  Example 1: Interferon therapy during Multiple Sclerosis (3)  Example 2: Interferon therapy during Multiple Sclerosis (3)  Example 3: Kasper, 2011 (4)	Pictograms are often shown as 100 or 1000 person diagram, depending on the data to be transmitted. The pictograms can be sorted (examples 1 and 2) or unsorted (example 3), animated (in web-based formats) or static and may also use different icons with either anthropomorphous (e.g. smileys, figures, photos, etc.) or geometric forms. Pictograms can be used for simple (example 1) or combined (examples 2 and 3) portrayals.
Bar charts	Bar charts can be used as horizontal or

Für die Altersgruppe 50-59 Jahre gilt: Von 1.000 Personen mit positivem Testergebnis haben etwa 100 Darmkrebs und 900 keinen Darmkrebs.  Example 4: Occult blood test (5)  Example 5: Immune therapy during Multiple Sclerosis (6)	vertical diagrams. The perception of the information can be distorted depending on the scales selected. It is therefore important to pay attention to the selection of the scales and thus how the reference value is portrayed. Bar charts can be used for simple (example 3) or combined (example 4) portrayals.
Pie charts  Example 6: Hawley, 2008 (7)	Pie charts / graphs can have various forms. Inscriptions are necessary in order to accurately estimate numerical information.

Questions

1. What effects do graphics in health information have when compared with text only?
2. What effects do the various types of graphics have in comparison with each other?
3. What effects do sorted or unsorted pictograms have in comparison with each other?
4. What effects do animated or static pictograms have in comparison with each other?
5. What effects do the different types of icons have in comparison with each other?
6. What effects do simple risk presentation in graphics have in comparison with combined risk presentation?

Recommendations

1. Using graphics

⟷	**Recommendation** **"Graphics may be used to supplement numerical presentations in texts or tables."** Agreed: 11, Disagreed: 0, Abstentions: 0 **Quality of the Evidence:** Low quality

Comment on the recommendation:

The recommendation refers to the comparison of supplementary graphic presentations in texts or tables with the numerical presentation only.

Overall, no relevant effect on the cognitive outcomes could be shown in this comparison. In two out of six studies, a positive effect for using graphics was shown for the outcomes *understanding / risk perception*. One study showed a positive effect for using tables and three studies showed no effect. For the outcome *knowledge*, three out of seven studies showed positive effects for using graphics; the other studies showed no effects. Five studies showed no effects or no consistent effects for the outcomes *comprehensibility / readability*.

For the affective outcomes *acceptance / attractiveness* one study showed a positive effect for using graphics. The results for the outcome *trust / credibility* (two studies) were inconsistent.

Summary of the findings

Characteristics of the included studies

For this comparison, nine studies were included with a total of 9,019 participants. The sample sizes were between 106 and 4,685; the average age was between 36 and 61 depending on the target group. The studies were carried out in the USA (7-13) and Canada (14). The people included were healthy participants (7, 9, 10, 14), groups such as veterans (8), patients of both sexes (13) as well as special target groups for the respective information (11, 12, 15). The interventions consisted of information

(online or in paper form) about risk factors for illnesses (8), about benefits and risks of possible therapies (7, 11-13) or preventive measures (9, 15), about transfusion medicine (14) as well as information on the results of medical tests (10). Numerical data in text or tables were supplemented by various graphics.

Results for the relevant outcomes

Overall, for the outcomes *understanding / risk perception*, *knowledge*, *comprehensibility / readability*, and *trust / credibility* no relevant and consistent effect could be shown (7-15). For the outcomes *acceptance / attractiveness* a positive effect for the use of graphics was shown (13).

2. Types of graphics

	**Recommendation** **"If graphics are used as a supplement, then either pictograms or bar charts should be used."** Agreed: 10, Disagreed: 0, Abstentions: 3 **Quality of the evidence:** moderate quality

Comment on the recommendation:

The Recommendation refers to the comparison of various types of graphics used for health information (e.g. pictograms, bar charts and pie charts).

In this comparison, positive effects for using pictograms and bar charts could be seen for the cognitive outcomes *understanding / risk perception* (in one out of two studies) and *comprehensibility / readability* (in one out of two studies). In one out of two studies, a positive effect for the outcome *knowledge* was shown for using pictograms and pie charts. In the other studies, there were no statistically significant differences.

Two studies showed a positive tendency towards bar charts and pictograms with regard to the affective outcomes *acceptance / attractiveness*.

Summary of the findings

Characteristics of the included studies

For this comparison, a total of four studies with 2,978 participants were included. The studies were carried out in the USA (7, 13, 16) and Canada (17). The participants were healthy people (7, 17) or patients of both sexes (13, 16) with an average age of over 49 years. The interventions consisted of information about benefits and risks of possible therapies (7, 13, 17) or of information gained from personalized risk presentations (16). Various graphics were compared, including pictograms, horizontal and vertical bar charts and also modified pictograph ("sparkplug") and "clock graphs".

Results for the relevant outcomes

No positive effects for using pictograms and bar charts were seen for the outcomes *understanding / risk perception* and *comprehensibility / readability* (7, 16, 17). Regarding the outcome *knowledge* no relevant difference was found between pie charts, pictograms and bar charts (7, 13). A positive tendency for bar charts and pictograms was reported for the outcome *acceptance / attractiveness* (13, 16).

3. Sorted and unsorted pictograms

	**Recommendation** **„If pictograms are used as a supplement, then sorted pictograms should be used."** Agreed: 9, Disagreed: 2, Abstentions: 2 **Quality of the evidence:** moderate quality

Comment on the recommendation:

The Recommendation refers to the comparison of presentations with sorted and unsorted pictograms.

In this comparison, four studies showed no consistent effect for the cognitive outcomes *understanding / risk perception*, *knowledge* and *comprehensibility / readability*. A positive effect when using sorted pictograms was shown in only one out of two studies concerning the outcome *knowledge*.

With regard to the affective outcome *acceptance / attractiveness*, three studies showed a positive effect for the use of sorted pictograms. For the outcome *trust / credibility* only one study was available, which showed a positive effect for unsorted pictograms.

Summary of the findings

Characteristics of the included studies

For this comparison, five studies were included with 6,923 participants, of which 6,202 took part in an online study (18). Patients of both sexes (4, 19), healthy people (17, 18) and the risk group smokers (20) were investigated. The average age was from 43 to over 50 years. The interventions consisted of information concerning possible treatment (4, 17, 18), presentation of the lifetime risk (19) and the presentation of findings from fictitious genetical tests (20). The studies were conducted in the USA (18, 19), Canada (17), Germany (4) and Great Britain (20).

Results for the relevant outcomes

Wirth regard to the outcomes *understanding / risk perception*, *knowledge* and *comprehensibility / readability* no consistent effect was shown (4, 17, 18, 20). A positive effect for using sorted pictograms was shown for the outcome *acceptance / attractiveness*. For the outcome *trust / credibility,* a positive effect was seen for using unsorted pictograms.

4. Animated and static pictograms

⟷	**Recommendation** **"Animated pictograms may be used as a supplement instead of static pictograms."** Agreed: 11, Disagreed: 0, Abstentions: 0 **Quality of the evidence:** moderate quality

Comment on the recommendation:

The recommendation refers to the comparison of animated and static pictograms used in online health information.

No distinct effect was found in the three included studies regarding the cognitive outcomes *understanding / risk perception* and *knowledge*. In one of two studies, a positive effect for the outcome *comprehensibility / readability* was shown when using static pictograms. The second study showed no difference.

Regarding the affective outcomes *acceptance / attractiveness*, one study reported a positive effect for static pictograms, and for the outcome *credibility* a positive effect for animated pictograms was shown in another study.

Summary of the findings

Characteristics of the included studies

For this comparison three studies were included. In one study in the USA, 165 healthy people with an average age of 31 and 33 years, respectively, were examined. The intervention consisted of web-based information on the risks of disease and on the benefits and harm of preventive measures (21). Using two versions of animated presentations, the static pictograms were compared (changing between sorted and unsorted; revealing the pictogram by clicking on the fields).

Two studies were carried out online in the USA with 6,202 and 3,354 participants, respectively, with an average age of 49 years (18, 22). The interventions consisted of information on possible forms of treatment for a fictitious type of cancer disease. In one study, static pictograms were compared with presentations that were built up in

stages by clicking on the pictogram (22). In the second study, differently animated pictograms were used that were built up or altered automatically or by clicking on the pictogram (18).

Results for the relevant outcomes

No consistent effect could be shown for the outcomes *understanding / risk perception*, *knowledge* and *comprehensibility / readability* (18, 21, 22). For the outcomes *acceptance / attractiveness* a positive effect was seen for static representations (19), and for the outcomes *trust / credibility* animated pictograms showed a positive effect (21).

5. Types of icon in pictograms

⟷	**Recommendation** **"Anthropomorphic icons or geometric icons may be used when pictograms are used as a supplement."** Agreed: 9, Disagreed: 1, Abstentions: 2 **Quality of the evidence:** low quality

Comment on the recommendation:

The recommendation refers to the comparison of various types of icons in pictograms. Various geometric forms were compared with each other (e.g. blocks and dots), and geometric icons were compared with anthropomorphic icons (e.g. figures and photos).

In this comparison, no effect could be shown for the cognitive outcomes *knowledge* (two studies: figurative vs. geometric; blocks vs. dots) and *comprehensibility / readability* (three studies: figurative vs. geometric; blocks vs. dots; shaded vs. unshaded). For the outcomes *understanding / risk perception*, a positive effect for using anthropomorphic icons was found in one of four studies. In the other three studies no difference was found between the groups (figurative vs. geometric; blocks vs. dots; shaded vs. unshaded).

In three out of five studies, positive effects were seen with regard to the affective outcomes *acceptance / attractiveness* when using anthropomorphic icons. One study showed a positive effect for shaded blocks compared to unshaded ones. In a further study, no significant difference was found for blocks vs. dots. For the outcomes *trust / credibility* no effect was seen (figurative vs. geometric) in another study.

Summary of the findings

Characteristics of the included studies

For this comparison five studies were included with a total of 2,232 participants. Healthy people (23, 24), students (25), patients of both sexes (19) and people with a low educational standard (26) were included, the average age being between 20 and

58 years. The studies were carried out in the USA (19, 23), Australia (25, 26) and Germany (24). The interventions consisted of representations concerning the benefits and harm of treatments (24, 26), survival rates (25, 26) and risks of diseases (19, 23, 24). Pictograms with various types of icons were compared: blocks and dots, shaded and unshaded, geometric and anthropomorphic, for example figures, human contours or photos.

Results for the relevant outcomes

In one study a positive effect for anthropomorphic icons was recorded concerning the outcomes *understanding / risk perception* (23). In the other studies, no effect for the outcomes *understanding / risk perception*, *knowledge* and *comprehension / readability* was found, whether in the comparison between various geometric forms or in the comparison with anthropomorphic icons (24-26). Regarding the outcomes *acceptance / attractiveness*, a positive effect for the use of anthropomorphic icons was shown (19, 23, 24). No significant difference was seen for the comparison of anthropomorphic icons with geometric icons with regard to the outcome *trust / credibility*.

6. Simple and combined risk portrayals

⟷	**Recommendation** **"Combined presentations or simple risk presentations can be presented in graphic form."** Agreed: 9, Disagreed: 2, Abstentions: 1 **Quality of the evidence:** moderate quality

Comment on the recommendation:

The recommendation refers to the comparison of simple forms of presentation with combined forms of presentation (e.g. risk with or without treatment) by using bar charts or pictograms.

For this comparison, no consistent effect for the cognitive outcomes *understanding / risk perception* and *comprehensibility / readability* could be shown in three studies. There is a positive tendency towards simple presentations. In one study no effect could be seen for the outcome *knowledge*.

With regard to the affective outcomes *acceptance / attractiveness*, no consistent effect could be seen in three studies.

Summary of the findings

Characteristics of the included studies

For this comparison, four studies with a total of 3,497 participants were included.

The sample size was between 76 and 1,648 and the average age was between 20 and 59 years, depending on the target group. The studies were carried out in the USA (15, 27, 28) and Australia (25). Healthy women (15, 27, 28) and students were included (25). The interventions consisted of information about preventive and therapeutic measures for treating breast cancer (15, 27, 28) and about hypothetical survival rates depending on the treatment (25). Simple and combined presentations in pictograms (15, 25, 27, 28) and bar charts (27) were compared.

Results for the relevant outcomes

For the outcomes *understanding / risk perception*, *knowledge*, *comprehension / readability* and *acceptance / attractiveness* no consistent effect could be shown (15, 25, 27, 28).

Evidence tables

Table 10: Evidence table „Supplementary graphic presentations in texts or tables versus numerical presentation only“

Certainty assessment						Summary of findings				
						No. of participants per group		Effect estimates		
Outcomes [No. of studies]	**Study design**	***Risk of bias***	**Inconsis-tency**	**Indirect-ness**	**Impreci-sion**	**Interven-tion**	**Control**	**Effects**	**Quality of evidence**	**Importance**
Supplementary graphic presentations in texts or tables versus numerical presentation only										
Understanding / risk perception [n=6] Brewer (10) Hawley (7) Ruiz (8) Sprague (9) Tait (11) Tait (12)	RCT	serious (-1)	not serious	not serious	serious (-1)	N= 1776 +N= 2518 (allocation on intervention and control unclear)	N= 3537	In two studies effects for graphics (9, 11), in one study effect for tables (7), in three studies no effects (8, 10, 12).	low	critical
Knowledge [n=7] Brewer (10) Hawley (7) Lee (14) Tait (11) Tait (12) Tait (13) Zikmund-Fischer (15)	RCT	serious (-1)	not serious	not serious	serious (-1)	N= 1932 +N= 3149 (allocation on intervention and control unclear)	N= 3561	In three studies effects for graphics (7, 11, 12), in four studies no effects (10, 13-15).	low	critical

Comprehensibility [n=4] Hawley (7) Tait (11) Tait (12) Tait (13)	RCT	serious (-1)	not serious	not serious	not serious	N= 1696 +N= 2412 (allocation on intervention and control unclear)	N= 3189	In two studies effects (11) or rather tendency (7) for graphics, in one study effect for text (13), in one study no effect (12).	moderate	important but not critical
Readability [n=1] Brewer (10)	RCT	serious (-1)	not serious	not serious	not serious	N= 106 (total, allocation on intervention and control unclear)		In one study no effect (10).	moderate	important but not critical
Acceptance / attractiveness [n=1] Tait (13)	RCT	serious (-1)	not serious	not serious	serious (-1)	N= 150	N= 50	In one study effect for graphics (13).	low	limited importance
Trust / Credibility [n=2] Hawley (7) Tait (11)	RCT	serious (-1)	not serious	not serious	serious (-1)	N= 1546 +N= 2412 (allocation on intervention and control unclear)	N= 3139	In two studies effects for (11) or rather against (7) graphics.	low	limited importance

Table 11: Evidence table „Various types of graphics in comparison with each other“

Certainty assessment						Summary of findings				
						No. of participants per group		Effect estimates		
Outcomes [No. of studies]	**Study design**	***Risk of bias***	**Inconsis-tency**	**Indirect-ness**	**Impreci-sion**	**Interven-tion**	**Control**	**Effects**	**Quality of evidence**	**Importance**
Various types of graphics in comparison with each other (i.e. pie or bar charts, pictograms,…)										
Understanding / risk perception [n=2] Ghosh (16) Hawley (7)	RCT	serious (-1)	not serious	not serious	not serious	N= 2562 (total, allocation on intervention and control unclear)		In one study effect for pictograms vs. other graphics (7). In two studies no effects for bar charts vs. pictograms (7, 16).	moderate	critical
Knowledge (verbatim and gist knowledge) [n=2] Hawley (7) Tait (13)	RCT	serious (-1)	not serious	not serious	not serious	N= 2612 (total, allocation on intervention and control unclear)		In one study effect for pie charts vs. other graphics and effect for pictograms vs. other graphics (without pie charts) (7). In one study no effect (pie charts, bar charts, pictograms) (13).	moderate	critical
Comprehensibility / readability [n=2] Feldman-Stewart (17) Hawley (7)	RCT	very serious (-2)	not serious	not serious	not serious	N= 2628 (total, allocation on intervention and control unclear)		In one study effect for bar charts and sorted pictograms vs. pie charts (17). In one study a tendency for pictograms (7).	low	important but not critical
Acceptance / attractiveness [2] Ghosh (16) Tait (13)	RCT	serious (-1)	Keine Inkonsis-tenz	Keine Indirekt-heit	Schwer-wiegende Impräzi-sion (-1)	N= 350 (total, allocation on intervention and control unclear)		In two studies a tendency for pictograms and bar charts (13, 16).	low	limited importance

Table 12: Evidence table „Pictograms sorted vs. unsorted“

Certainty assessment						Summary of findings				
						No. of participants per group		Effect estimates		
Outcomes [No. of studies]	**Study design**	***Risk of bias***	**Inconsis-tency**	**Indirect-ness**	**Impreci-sion**	**Interven-tion**	**Control**	**Effects**	**Quality of evidence**	**Importance**
Pictograms sorted vs. unsorted										
Understanding / risk perception [n=1] Kasper (4)	RCT	serious (-1)	not serious	not serious	not serious	N= 111 (total, allocation on intervention and control unclear)		In one study no clear effect: effect for sorted pictograms to present side effects, no effect to present benefits (4).	moderate	critical
Knowledge [n=2] Wright (20) Zikmund-Fischer (18)	RCT	serious (-1)	not serious	not serious	not serious	N= 6342 (total, allocation on intervention and control unclear)		In one study effect for sorted pictograms, larger effect for *high numeracy* (18). In one study no effect (20).	moderate	critical
Comprehensibility / readability [n=2] Feldmann-Stewart (17) Wright (20)	RCT, partial within-sub-ject design	very serious (-2)	not serious	not serious	not serious	N= 356 (total, allocation on intervention and control unclear)		In one study a tendency for sorted pictograms (17), in one study no effect (20).	low	important but not critical

Acceptance / attractiveness [n=3] Kasper (4) Schapira (19) Zikmund-Fischer (18)	RCT, partial within-sub-ject design	serious (-1)	not serious	not serious	not serious	N= 6567 (total, allocation on intervention and control unclear)	In three studies effects for sorted pictograms (4, 18, 19).	moderate	limited importance
Trust / credibility [n=1] Schapira (19)	within-sub-ject design	very serious (-2)	not serious	not serious	not serious	N= 254 (total, allocation on intervention and control unclear)	In one study effect for unsorted pictograms (19).	low	limited importance

Table 13: Evidence table „Pictograms animated vs. static“

Certainty assessment						Summary of findings				
						No. of participants per group		Effect estimates		
Outcomes [No. of studies]	**Study design**	***Risk of bias***	**Inconsis-tency**	**Indirect-ness**	**Impreci-sion**	**Interven-tion**	**Control**	**Effects**	**Quality of evidence**	**Importance**
Pictograms animated vs. static										
Understanding / risk perception [n=1] Ancker (21)	online survey with control group	very serious (-2)	not serious	not serious	not serious	N= 165 (total, allocation on intervention and control unclear)		In one study no effect (21).	low	critical
Knowledge [n=2] Zikmund-Fischer (22) Zikmund-Fischer (18)	RCT	serious (-1)	not serious	not serious	not serious	N= 9556 (total, allocation on intervention and control unclear)		In one study no clear effect (22). In one study effect for single animations only, but not homogeneous for different level of numeracy (18).	moderate	critical
Comprehensibility / readability [n=2] Ancker (21) Zikmund-Fischer (22)	RCT and online survey with control group	serious (-1)	not serious	not serious	not serious	N= 3519 (total, allocation on intervention and control unclear)		In one study effect for static pictograms (22), in one study no effect (21).	moderate	important but not critical

Acceptance / attractiveness [n=1] Zikmund-Fischer (18)	RCT	serious (-1)	not serious	not serious	not serious	N= 6202 (total, allocation on intervention and control unclear)	In one study effect for static pictograms, for few animations no effect (18).	moderate	limited importance
Trust / credibility [n=1] Ancker (21)	online survey with control group	very serious (-2)	not serious	not serious	not serious	N= 165 (total, allocation on intervention and control unclear)	In one study effect for animated pictograms (21).	low	limited importance

Table 14: Evidence table „Various types of icons in comparsion with each other“

Certainty assessment						Summary of findings				
						No. of participants per group		Effect estimates		
Outcomes [No. of studies]	**Study design**	***Risk of bias***	**Inconsis-tency**	**Indirect-ness**	**Impreci-sion**	**Interven-tion**	**Control**	**Effects**	**Quality of evidence**	**Importance**
Various types of icons in comparison with each other Geometric icons with each other Anthropomorphic vs. geometric icons										
Understanding / risk perception [n=4] Gaissmaier (24) McCaffery (26) Price (25) Zikmund-Fischer (23)	RCT, partial within-sub-ject design	very serious (-2)	not serious	not serious	not serious	N= 1976 (total, allocation on intervention and control unclear)		In one study effect for figures and photos vs. blocks (23). In three studies no effects (figures vs. blocks; blocks vs. ovals; shaded vs. not shaded) (24-26).	low	critical
Knowledge [n=2] Gaissmaier (24) McCaffery (26)	RCT, partial within-sub-ject design	very serious (-2)	not serious	not serious	not serious	N= 400 (total, allocation on intervention and control unclear)		In two studies no effects (figures vs. geometric; blocks vs. ovals) (24, 26).	low	critical

Comprehensibility / readability [n=3] Gaissmaier (24) McCaffery (26) Price (25)	RCT, partial within-sub-ject design	very serious (-2)	not serious	not serious	not serious	N= 476 (total, allocation on intervention and control unclear)	In three studies no effects (figures vs. geometric; blocks vs. ovals; shaded vs. not shaded) (24-26).	low	important but not critical
Acceptance / attractiveness [n=5] Gaissmaier (24) McCaffery (26) Price (25) Schapira (19) Zikmund-Fischer (23)	RCT, partial within-sub-ject design	very serious (-2)	not serious	not serious	not serious	N= 2232 (total, allocation on intervention and control unclear)	In three studies effects for human figures / figurative representation / figures and photos vs. geometric represen-tations (19, 23, 24). In one study effect for shaded vs. not shaded (25). In one study no effect (blocks vs. ovals) (26).	low	limited importance
Trust / credibility [n=1] Schapira (19)	RCT, partial within-sub-ject design	Sehr schwer-wiegendes Risiko für Bias (-2)	not serious	not serious	not serious	N= 254 (total, allocation on intervention and control unclear)	In one study no effect (figures vs. geometric) (19).	low	limited importance

Table 15: Evidence table „Simple versus combined risk presentation in graphics"

Certainty assessment						Summary of findings				
						No. of participants per group		Effect estimates		
Outcomes [No. of studies]	**Study design**	***Risk of bias***	**Inconsis-tency**	**Indirect-ness**	**Impreci-sion**	**Interven-tion**	**Control**	**Effects**	**Quality of evidence**	**Importance**
Simple versus combined risk presentation in graphics										
Understanding / risk perception [n=3] Price (25) Zikmund-Fischer (27) Zikmund-Fischer (28)	RCT, partial within-sub-ject design	serious (-1)	not serious	not serious	not serious	N= 2805 (total, allocation on intervention and control unclear)		In one study effect for single presentations (28). In one study a tendency for simple presentation (2 vs. 4 options, bar charts and pictograms) (27). In one study no effect (25).	moderate	critical
Knowledge [n=1] Zikmund-Fischer (15)	RCT	serious (-1)	not serious	not serious	not serious	N= 663 (total, allocation on intervention and control unclear)		In one study no effect (15).	moderate	critical

Comprehensibility / readability [n=3] Price (25) Zikmund-Fischer (28) Zikmund-Fischer (27)	RCT, partial within-sub-ject design	serious (-1)	not serious	not serious	not serious	N= 2805 (total, allocation on intervention and control unclear)	In one study effect on comprehen-siblity for combined presentations, no effect on readability (25). In one study a tendency for simple presentations (2 vs. 4 options, bar charts and pictograms), no tests on statistical significance (27). In one study no effect (28).	moderate	important but not critical
Acceptance / attractiveness [n=3] Price (25) Zikmund-Fischer (28) Zikmund-Fischer (27)	RCT, partial within-sub-ject design	serious (-1)	not serious	not serious	serious (-1)	N= 2805 (total, allocation on intervention and control unclear)	In one study effect for combined grapics (25). In one study a questionable effect for single presentations (28). In one study no effect (27).	low	limited importance

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