gesund.bund·de
Verlässliche Informationen für Ihre Gesundheit

Method Paper for the gesund.bund.de Portal

Content

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1. Introduction

This method paper describes how articles are created for the gesund.bund.de health portal and the quality criteria on which the process is based.

1.1. Need for information among the general population

More and more citizens are turning to the internet to look for information about medical conditions and other health-related issues. However, the vast amount of information available on the internet is not easy to process and evaluate – the quantity and heterogeneous nature of the available information present huge challenges to citizens in terms of finding the information they need, assessing its quality and choosing what is relevant to them.

Almost 60 percent of the population have a low level of health literacy (1). Even the internet-savvy generation of younger people aged 14 to 17 don't fare much better according to one study – with the majority of these stating that they had difficulty evaluating the quality of health information and making decisions affecting their own health (2).

The gesund.bund.de health portal aims to provide reliable health-related knowledge in a way that is easily understood. It serves to promote health literacy among the general population. This allows citizens to make independent and informed decisions about their own health and the health of their loved ones, to find the right points of contact for their needs and to play an active role in the healthcare process. This helps maintain or improve quality of life at all stages of their lives (3).

Due to changes in the understanding of roles in the doctor-patient relationship, more and more patients are becoming actively involved in medical decisions (participative decision-making) (4). This promotes greater patient sovereignty. The gesund.bund.de portal contributes to this by providing important information about health-related topics, medical conditions and treatment options – all based on selected scientific sources. It also provides references to more in-depth health information, as well as articles and service offerings that make the healthcare system and care system easier to navigate.

1.2. Target groups and objectives

In fulfilling its public mandate to provide information, gesund.bund.de acts as a reliable advisory service for all people in Germany. The health portal helps citizens to understand their own health and to actively make independent decisions. It also aims to help people accurately assess medical services available for prevention, diagnosis and treatment and to make effective use of these. To this end, gesund.bund.de provides clear, quality-assured and neutral health information, as well as many links and references to guide anyone interested towards reliable sources of more in-depth information. Connections within the healthcare system and available healthcare services are also communicated in order to facilitate participation in the healthcare system.

gesund.bund.de is aimed at citizens who have a general interest in health matters, as well as those who are looking for information about a particular medical condition. The content is also intended to support healthcare professionals when providing consultations and explaining information to patients.

The portal is not intended to provide one-to-one advice about personal health-related issues.

1.3. Information offering

gesund.bund.de provides health information about various topics, as well as search functions and information aimed at specific groups of people. New information is being added all the time.

1.3.1. Topics

- Conditions
  This section of the portal provides descriptions of common health conditions, organized by the organ system affected. There are also articles dealing with special topics, such as COVID-19 or cancer.

- Healthy living
  When users click on the "Healthy living" navigation point, they will primarily find a selection of articles promoting a healthy lifestyle and illness prevention. This section is divided into various sub-areas aimed, for example, at different life stages, lifestyles, age groups and those interested in environmental issues.

- Care
  This section offers articles about the topic of care – for example, long-term care insurance, care benefits and information for family caregivers. It also provides information about where people can seek help and support.

- Digital health
  The digitization of the healthcare system is increasingly enabling patients to manage previously paper-based documents in electronic format. This section of the portal explains the digitization process and provides information about the relevant technical principles and about data protection.

- Services
  The portal's media library includes many explanatory videos about medical conditions and other health-related topics.

  The "Services" area of the portal also provides articles about patient rights, guidance for using the website and various options that can be used to search for specific information.

1.3.2. Search functions

Search functions are provided on the homepage and under "Services". These include:

- ICD and OPS code search
  Codes for diagnoses (ICD codes) and procedures (OPS codes) are used in patients' electronic patient records, hospital discharge letters and other medical documents. These can be entered in the search panel to find clear explanations of what the codes mean in terms of what condition a person has been diagnosed with and what treatment they received.

- Service provider searches
  These functions allow portal users to search for a doctor or a hospital in certain regions or within certain fields of medical expertise (5) (6).

1.3.3. Multiple languages

To cater to the needs of those in the population who have little knowledge of German, all content in the gesund.bund.de portal is provided in multiple languages.

1.4. Quality standards

The Federal Ministry of Health (Bundesministerium für Gesundheit), which publishes gesund.bund.de, is committed to providing scientifically backed health information of a consistently high quality.

With this in mind, the portal's editorial team adheres to defined quality criteria based on the criteria set out in the "Good Practice in Health Information" (7) and "Guide to Evidence-Based Health Information" (8) papers published by the German Network of Evidence-Based Medicine ("Deutsches Netzwerk Evidenzbasierte Medizin e.V.").

Key quality criteria based on these guidelines include the following:

- The information is based on the latest medicinal knowledge.
- The information is free from commercial or political interests.
- The health information is easy to understand.
- The articles are structured in a user-friendly manner.
- Accessibility is guaranteed.
- Conflicts of interest are taken into account when articles are created.
- The creation of articles is presented in a transparent way.
- All information is provided in a neutral tone, i.e. is non-judgmental. This means, for example, that no formulations are used that would downplay a topic or provoke anxiety in readers.

- The understanding of the content is supported by graphical representations (illustrations, images, videos).

1.4.1. Evidence-based medicine

gesund.bund.de is committed to providing citizens with evidence-based health information that is easily understood. The key premise for the creation of articles is the provision of knowledge from evidence-based medicine (EBM), presented clearly in such a way that even the most complex medical content can be easily understood.

Evidence-based medicine is based on methods that produce or bring together reliable new findings, such as high-quality scientific studies, clinical trials or reviews (9). Research networks like Cochrane and providers like UpToDate and DynaMed have specialized in gathering this kind of knowledge and making it available.

In practice, evidence-based medicine aims to find the best possible treatment for patients. It means that decisions about treatment are based on the best knowledge available from clinical research and medical experience. The type and severity of a patient's illness, as well as their life situation and personal values and opinions play an important role in these decisions (10). Evidence-based health information helps patients make informed decisions.

1.4.2. Quality concept – cooperation with renowned partners

To ensure that each article meets the highest standards, the portal's editorial team collaborates with selected institutions that share a common understanding of quality.

On the "Partners" page of the gesund.bund.de portal, an overview is provided of the institutions (content partners) that collaborate on articles or provide us with articles based on the highest standards of professional quality. We also ask professional scientific organizations to check individual articles.

Our partners for medical and scientific articles are research institutions that employ an evidence-based approach, are leaders within their field of expertise and make their methods available to the public (11) (12) (13) (14) (15). Non-profit organizations with experts in medical, health-related or legal matters also collaborate with us on content creation (16) (17). Each of these partners have their own high-quality advisory services and provide in-depth information on their websites.

2. Methodology

2.1. Creation of health information

2.1.1. Identifying the need for information

Evidence-based medicine should be tailored to meet the information needs of the target group (7).

Essential information on each topic is developed by the portal's editorial team in accordance with objective criteria and collaboration with the Federal Ministry of Health and our content partners. This creates a basis for answering the health-related questions that are most frequently asked by citizens, discussing health topics of special public interest, and providing information about forthcoming innovations and changes in the healthcare system. For example, one criterion that applies to content in the "Conditions" section is the frequency with which a condition is diagnosed. We also take suggestions from experts on board during topic planning.

The commenting function provides indications of what information is needed by users. Constructive feedback on articles is collected and reviewed and is then taken into consideration for future updates and topic planning.

For each planned article, an SEO audit is conducted prior to content creation in order to determine frequently asked questions and important keywords relating to the topic. In some cases, this audit indicates that more in-depth information is required and suggests topics for future articles.

2.1.2. Research and selection of evidence

For many articles, sources are selected and provided in collaboration with our content partners. In other cases, we use – wherever possible – synthesized evidence-based content, e.g., from UpToDate, DynaMed and StatPearls. Our other preferred sources in the medical area are systematic overviews, meta-analyses, valid S3 guidelines and the latest information from renowned professional organizations and institutes. If sufficient material cannot be found there, primary studies are used. Where possible, the information used is from within the last five years. This approach is mandatory for the "Conditions" area of the portal in particular and is followed as far as possible in all other areas.

In addition to articles with medical content, the portal also offers articles about the healthcare system and care system, as well as other health-related topics that go beyond medical, evidence-based health information. These are also based on transparent, trustworthy sources. Where legal context is required, we use legislation or information provided by qualified organizations as our sources.

The sources used are listed at the end of each article. If a text is based on a very large number of sources, a selection of the most relevant sources is provided for the sake of simplicity.

2.1.3. Representation of uncertainties, benefits and risks

The articles on gesund.bund.de provide an overview and essential information about topics related to health. One essential function of the portal is to provide links pointing users towards more in-depth, reliable sources of health information and advice. To avoid overloading the articles with excessive information, detailed information – for example, on the benefits, chances of success, risks and uncertainties relating to individual measures – is not generally provided in the texts themselves. After all, essential health information cannot cover all aspects of a differential therapy for a large number of different patient groups. For this reason, links and references to sources of more in-depth information constitute an important component of gesund.bund.de.

2.1.4. Content creation

Some content is created by the portal's editorial team. Other content is contributed entirely by our content partners and is published without changes or following an editorial review and further consultation.

The process of text production by the portal's editorial team begins with a briefing to define the title, structure, important key words, questions to be answered and sources to be used.

The texts have a formal structure to help users quickly find the information they need and to help ensure that they understand the content. For example, a text describing a medical condition consists of the following mandatory and optional elements:

- Title
- ICD code(s)
- Short description
- "At a glance" infobox
- Disclaimer
- Introduction/Definition
- Symptoms
- Causes
- Risk factors [optional]
- Prevalence [optional]
- Outlook [optional]
- Prevention [optional]
- Screening [optional]
- Diagnosis
- Treatment

- Rehabilitation [optional]
- Aftercare [optional]
- Screening [optional]
- Everyday life with the condition [optional]
- Further information [optional]
- Sources
- Reviewed by /In collaboration with [content partner/professional organization responsible for reviewing content]
- Date [last updated]
- Recommended articles

Texts in other areas are slightly more varied in their structure:

- Title
- Short description
- "At a glance" infobox
- Introduction/Definition
- Sections (adapted to suit the topic)
- Further information
- Sources
- Date [last updated]
- Recommended articles

In addition to formal aspects such as text structure, stylistic conventions are defined in a set of editorial guidelines, which are being further developed all the time. These include presenting topics in an objective, informative way in natural language. Facts are represented in a neutral way, i.e., they are not downplayed or presented in a way that would provoke anxiety. The same applies to illustrations and images.

Details of prevalence and risks are specified using concrete numbers (e.g. "x in 1000") or percentages. When drawing comparisons, consistent and, where possible, easily understood reference values are used. Absolute event frequencies and risk changes are given preference.

If significant differences are found in the selected literature describing a condition in terms of age group or sex, these are taken into account when creating the article content.

Editorial team members do not put forward their own assessments, recommendations or suggestions for decision-making as part of the content.

The texts are written by experienced specialist editors and cross-checked in accordance with the dual control principle. All statements are backed up by an appropriate source. Following an internal methodological and content review, each text undergoes an SEO audit and is illustrated. The next step is an initial review of content by the content partner or the collaborating professional associations or organizations.

Following a revision of content based on expert comments, proof-reading, entry in the content management system and internal quality assurance, the experts who already reviewed the article receive it a second time as a web preview to be checked again and given final approval. Once this is done, the text is translated into other languages by a certified agency using professional translators and is published online.

The documents and files relating to the article and the relevant literature are clearly specified and archived at every process level. This ensures that each text is traceable to the individuals who worked on its content.

2.1.5. Video production

To facilitate understanding, the content of frequently used articles, as well as complex processes and supplementary information are also presented in explanatory videos. The production of these videos therefore adheres to the same principles and quality criteria as the creation of articles. In this case also, our content partners or collaborating professional associations or organizations are involved at several stages and review not only the script (spoken text) of the video but also the planned visual implementation and the finished explanatory video.

2.2. Adapting content to the target group

2.2.1. Text and illustrations

Evidence-based medicine should be tailored to meet the information needs of the target group. It is important to be aware that gaps in knowledge and misunderstandings can also occur (7).

We aim to make our content as easy to understand as possible by using natural, active language and short sentences and by explaining medical terms. As a point of reference for assessing the level of difficultly of a text, we use the Flesch Reading Ease formula adapted for German and determine a Flesh Reading Ease score as part of each SEO audit.

A summary at the beginning of each article ("At a glance") provides a brief digest of the main points in just a few sentences. To engage all channels of perceptions, illustrations are provided in the articles to facilitate understanding and visually highlight important points. A "Read out loud" function is also provided. To reach as many citizens as possible, a gender-neutral language style is used. In addition, all articles are available in multiple languages.

2.2.2. Accessibility

Based on the German Disabled Persons Equality Act (BGG) (18) and the Regulation on Accessible Information Technology (BITV 2.0) (19), the gesund.bund.de website is accessible to all.

This has been verified in accordance with EN 301 549/WCAG 2.1 (17 August 2021). All pages included in the review were found to be BITV- and WCAG-compliant. Users are given the option to report barriers to access.

3. Content updates

Evidence-based health information represents the current state of medical research. And this is something that is constantly evolving. For this reason, all articles that provide medical information are reviewed and, where necessary, amended in cycles of three years at most to ensure that they remain up-to-date. These reviews are brought forward if urgent updates are required. As evidence of this, all articles are labeled with the date on which they were last updated. This also applies to articles on non-medical topics and to documents such as this method paper and other information that describes internal processes and quality assurance.

Links to further sources are checked on an ongoing basis.

4. Transparency

The quality criteria specified under point 1.4 are binding for the publishers and editors of the health portal. These can be viewed in the portal under "About us/Quality assurance".

Information about the portal's editorial team, funding and responsibilities is provided under "About us/About gesund.bund.de" and under Legal notice.

The employees of the editorial team are required to make a detailed disclosure of possible conflicts of interest to the publisher and to also make a statement on the handling of bias. Conflicts of interest are also taken into account when choosing content partners and external authors.

5. User participation

Below each article, users have an option to rate the content and leave a comment (anonymously if they so wish). These ratings and comments are not published and all information is treated confidentially. Within the scope of quality assurance, this feedback helps the editorial team make articles more user-friendly and amend the content if this is deemed necessary and useful. Changes to articles are made in consultation with the content partners. Observations, comments and questions are assessed in order to improve the information offered and to add any topics that may be missing.

A standardized reply is immediately sent to the e-mail address of the user, which is subsequently followed up with another mail responding directly to their question. More

complex, specialized questions are answered in consultation with the content partners and external experts.

6. Summary

The gesund.bund.de health portal serves to promote health literacy and patient sovereignty among all people in Germany. For this purpose, gesund.bund.de provides essential information about medical conditions, preventive measures and about the healthcare system and care system. It also provides services that make it easier to find advice and access services. Another important aim of the portal is to direct users to sources of more in-depth information and reliable organizations and institutions.

The creation of all content is subject to the highest standards of quality and involves selected partners with an established reputation in the relevant fields of expertise. These are involved in creating and reviewing content at several process levels. Factual correctness is also ensured by regular, cyclical updates.

In addition, content is continually enhanced on the basis of valuable feedback from users, which can be submitted using the commenting function provided at the end of each article, together with a general evaluating how helpful the user found the information to be.

7. References

1. **Schaeffer, D., et al.** *Gesundheitskompetenz der Bevölkerung in Deutschland vor und während der Corona Pandemie: Ergebnisse des HLS-GER 2.* Bielefeld : Universität Bielefeld, Interdisziplinäres Zentrum für Gesundheitskompetenzforschung, 2021. doi: 10.4119/unibi/2950305.

2. **Loer, A. M., et al.** Subjective Generic Health Literacy and Its Associated Factors among Adolescents: Results of a Population-Based Online Survey in Germany. *Int J Environ Res Public Health.* 2020, Bd. Nov 23;17(22):8682.

3. **Bitzer, E. M. und Sørensen, K.** Gesundheitskompetenz – Health Literacy. *Gesundheitswesen.* 2018, Bde. 80(8-09):754-766. doi: 10.1055/a-0664-0395.

4. **Baumann, E., et al.** Wie informieren sich die Menschen in Deutschland zum Thema Gesundheit? Erkenntnisse aus der ersten Welle von HINTS Germany. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz.* 2020, S. 63(9):1151-1160. doi: 10.1007/s00103-020-03192-x.

5. **Deutsche Krankenhaus TrustCenter und Informationsverarbeitung GmbH (DKTIG).** *Über das Deutsche Krankenhaus Verzeichnis.* [Online] 24. 01 2022. https://www.deutsches-krankenhaus-verzeichnis.de/das-dkv/ueber-das-dkv.

6. **Weisse Liste gemeinnützige GmbH.** *Methode Arztsuche.* [Online] [Zitat vom: 24. 01 2022.] https://www.weisse-liste.de/de/service/ueber-arztsuche/methoden-arztsuche/.

7. **Deutsches Netzwerk Evidenzbasierte Medizin.** *Gute Praxis Gesundheitsinformation 2.0, Stand 21.07.2016.* [Online] [Zitat vom: 24. 01 2022.] https://www.ebm-netzwerk.de/de/medien/pdf/gpgi_2_20160721.pdf/.

8. **Lühnen, J., et al.** *Leitlinie evidenzbasierte Gesundheitsinformation.* [Online] https://www.ebm-netzwerk.de/de/medien/pdf/leitlinie-evidenzbasierte-gesundheitsinformation-fin.pdf.

9. **Deutsches Netzwerk Evidenzbasierte Medizin.** *Methodik.* [Online] [Zitat vom: 10. 12 2021.] https://www.ebm-netzwerk.de/de/service-ressourcen/ebm-basics/methodik.

10. **Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen.** *Was ist evidenzbasierte Medizin?* [Online] [Zitat vom: 02. 12 2021.] https://www.gesundheitsinformation.de/was-ist-evidenzbasierte-medizin.html.

11. **Stiftung für Qualität und Wirtschaftlichkeit im Gesundheitswesen.** *Allgemeine Methoden.* [Online] [Zitat vom: 24. 01 2022.] https://www.iqwig.de/ueber-uns/methoden/methodenpapier/.

12. **Deutsches Krebsforschungszentrum (DKFZ).** *Der Krebsinformationsdienst des Deutschen Krebsforschungszentrums. Aufgaben, Arbeitsweise, Qualitätsmanagement.* [Online] [Zitat vom: 24. 01 2022.] https://www.krebsinformationsdienst.de/wirueberuns.php.

13. **Robert Koch-Institut.** *Befragungsmethoden.* [Online] [Zitat vom: 24. 01 2022.] https://www.rki.de/DE/Content/Gesundheitsmonitoring/Studien/Methodik/Befragungsmet hoden/Befragungsmethoden_node.html;jsessionid=8D046363E19EB2297B68C467EBE1AAC0 .internet111.

14. —. *Empfehlungen und Leitlinien.* [Online] [Zitat vom: 24. 01 2022.] https://www.rki.de/DE/Content/Gesundheitsmonitoring/Studien/Methodik/Empfehlungen/ empfehlungen_node.html;jsessionid=8D046363E19EB2297B68C467EBE1AAC0.internet111.

15. —. *Epidemiologische Laboranalysen.* [Online] [Zitat vom: 24. 01 2022.] https://www.rki.de/DE/Content/Gesundheitsmonitoring/Studien/Methodik/Laboranalysen/ Laboranalysen_node.html;jsessionid=8D046363E19EB2297B68C467EBE1AAC0.internet111.

16. **"Was hab' ich?" gemeinnützige GmbH.** *Verständliche Gesundheitsinformationen.* [Online] [Zitat vom: 24. 01 2022.] https://washabich.de/projekt/gesundheitsinformationen.

17. **UPD Patientenberatung Deutschland gGmbH.** *Wie wir arbeiten.* [Online] [Zitat vom: 24. 01 2022.] https://www.patientenberatung.de/de/uber-uns/wie-wir-arbeiten.

18. **Bundesamt für Justiz.** BGG. *Gesetz zur Gleichstellung von Menschen mit Behinderungen.* [Online] 2021. [Zitat vom: 24. 01 2020.] https://www.gesetze-im-internet.de/bgg/index.html.

19. —. *BITV 2.0. Verordnung zur Schaffung barrierefreier Informationstechnik nach dem Behindertengleichstellungsgesetz (Barrierefreie-Informationstechnik-Verordnung).* [Online] [Zitat vom: 24. 01 2022.] https://www.gesetze-im-internet.de/bitv_2_0/BJNR184300011.html.

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