



## Graphic symbols, health and environment<sup>1</sup>

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### ABSTRACT

Present in objects or in places in the environmental scenario, graphic symbols indicate socially appropriate behavior in the most varied situations of everyday life. In relation to health, for example, they help to identify a medical service; they warn about risks when operating certain equipment; they differentiate prohibited and prescribed uses; they help patients understand and memorize technical information and facilitate communication between lay people and health professionals. The Associação de Normas Técnicas (ABNT), a private, non-profit entity, has the mission of providing Brazilian society with normative documents that contribute to the public utility and to the scientific development. This article presents a selection of the current ABNT standards, whose content specifically presents graphic symbols for health, including in this expanded concept, symbols for safety and the environment.

**Keywords:** Graphic symbols, Pictograms, Health, Safety, Environment.

### 1 INTRODUCTION

There are several graphic symbols or pictograms<sup>2</sup> used in healthcare, in hospital environments, to indicate safety measures and to represent issues related to the environment. We can cite as common examples:

- a. Red Cross: is a universally recognized symbol to represent healthcare institutions, including hospitals. It is also used to indicate the presence of medical services;



- b. Syringe, to represent the location of the pharmacy;

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<sup>2</sup> The *International Organization for Standardization* (ISO) and the Brazilian Association of Technical Standards (ABNT) use the expression *graphic symbols* instead of *pictograms* because it is more generic and covers both *pictographic* signs and more abstract and conventional ones. However, the term *pictogram* is widely recognized by designers. Their function is to convey messages of an informative, prescriptive or operative nature to as many people as possible, regardless of the differences in sex, age or nationality that they may present. The Association of Graphic Designers (ADG) defines *pictogram* as: "[...] Its figurative design is schematic and self-explanatory and presents the following characteristics: graphic conciseness, conceptual density and a communicative functionality that overcomes the barriers of verbal language. Entry written by Sandra M. R.de Souza (Member of the Teaching Committee) and reviewed by João de Souza Leite. Check it out at: ADG. ABC of ADG. Glossary of terms and entries used in graphic design. São Paulo, 1998, p.84-85.



- c. Green Energy: This symbol combines an electrical outlet with a green leaf, representing clean and sustainable energy;



- d. Caduceus sign: symbol commonly associated with medicine. It features a staff entwined by two serpents and is often used to represent the medical profession as a whole.



Conventions of form and color also help us recognize safety symbols, such as a yellow triangle with a black exclamation mark in the center is widely recognized as a warning symbol and indicates the need for caution and attention; A red circle with a descending red diagonal stripe superimposed on a specific object indicates that that object is forbidden or its access is restricted to certain areas. It is important to remember that the interpretation of these symbols may vary depending on local rules and regulations, but they all have in common the promotion or maintenance of overall health and well-being.

However, the concept of health is complex, as it involves several aspects related to the health-disease process, which go beyond the biological aspect itself, encompassing social, environmental, economic and political determinants as well.

On April 7, 1948, the World Health Organization (WHO) issued a concept of health, much criticized as *unattainable*, ideal, establishing that: "Health is the state of the most complete physical, mental and social well-being and not only the absence of disease". (*apud GOV.BR*, 2021). The WHO was the first international health organization to recognize the importance of mental health in addition to the health of the body.

In 1974, the then Minister of Health of Canada, Marc Lalonde, expanded the concept of health, warning that it would involve four basic segments: 1- the biological, referring to genetics and the processes of life, 2- the environmental, related to the elements of nature and their impact on life, 3- the lifestyle, 4- the organization of health care, regarding therapeutic, clinical and hospital services. (Lalonde, 1974). Having a balanced diet, regular physical activity, stress management, periodic medical and dental *check-ups*, social support, and mental health care are all important aspects of preserving overall well-being.

In Alma-Ata, Republic of Kazakhstan, during the International Conference on Primary Health Care, promoted by the WHO in 1978, the great inequality in the area of health between underdeveloped and



developed countries, the responsibility of the State in health promotion and the importance of individual and community action in the implementation of health care were discussed. An international classification of diseases was also elaborated at this event, as well as international health regulations and standards for water quality, as it was understood that primary health care should include other care, such as adequate nutrition, basic sanitation, maternal and child care, family planning, immunizations, prevention and control of endemic diseases, provision of essential medicines, and integration with other sectors. such as the agricultural and the industrial.

In Brazil, the 1988 Constitution, in its article 196, determines that: "Health is a right of all and a duty of the State, guaranteed through social and economic policies aimed at reducing the risk of disease and other health problems and at universal and equal access to actions and services for the promotion, protection and recovery" (STF, 1988).

This purpose is what directs the performance of the Unified Health System (SUS).

Figure 1 SUS Trademarks - Ministry of Health- Portal gov.br



## 2 GRAPHIC SYMBOLS FOR HEALTH

Regardless of the discussions about the expanded concept of health, the fact is that design can and should contribute to a greater number of people taking care of their health and promoting it in their surroundings or community, ensuring the well-being of society.

In the relationship between graphic symbols and health, we can highlight five specific uses:

- a) in medical equipment;
- b) the identification of products for professional use;
- c) in the signaling of health services;
- d) in campaigns to promote health and
- e) in the instructions for use of medicines (Matos, 2009, p.83).

The images used in equipment and products for professional use are generally more abstract and require a greater effort of memorization to be used on maps, labels or professional cards. The images used in signs, campaigns and instructions, because they are aimed at a lay audience, are more pictographic, that



is, they are simplified to fit in space, but have the necessary attributes for their instantaneous, immediate and effortless decoding.

### 3 ABNT GRAPHIC SYMBOLS FOR HEALTH

The Brazilian Association of Technical Standards (ABNT) is a private, non-profit entity, whose mission, as its name implies, is the elaboration, dissemination and implementation of technical standards, on the most varied subjects, valid for the entire national territory. Founded on September 28, 1940, ABNT participates as a member of several international organizations such as the International *Organization for Standardization* (ISO), the *Pan-American Commission of Technical Standards* (Copant), the *Asociación Mercosur de Normalización* (AMN) and the *International Electrotechnical Commission* (IEC). In addition, since 1950, ABNT has been active in conformity assessment and has programs for certification of products, systems and environmental labeling. As stated on its *website* (abnt.org.br) "Working in harmony with governments and society, ABNT contributes to the implementation of public policies, promotes the development of markets, consumer protection and the safety of all citizens" (ABNT/ Institutional/sobre, n/p.)

Its norms, however, do not have the power of law; They are more recommendations than impositions, that is, their use is voluntary.

A standard is a document established by consensus and approved by a recognized body that provides rules, guidelines or minimum characteristics for activities or their results, aiming to obtain an optimal degree of order in a given context. The standard is, in principle, of voluntary use, but it is almost always used because it represents the consensus on the state of the art of a given subject, obtained among experts of the interested parties. " (ABNT/standardization/on, n.p.).

The standards developed by ABNT are the result of intense multidisciplinary work, from their conception to public consultation, open to the whole society. They represent the suitability of the market to which they are intended, ensuring the desirable characteristics of products and services, such as quality, safety, efficiency, as well as environmental respect.

In relation to graphic symbols, ABNT instituted, in 2012, a Special Study Committee, CEE 168, for the elaboration or revision of technical standards involving any and all graphic symbols, such as the Technical Commission ISO/TC 145, which has been in operation since 1970 and whose scope is:


Standardisation in the field of graphic symbols, as well as colours and shapes, where these elements form part of the message that a symbol is intended to convey, for example a safety sign. Establishment of principles for the preparation, coordination, and application of graphic symbols. General responsibility for the review and coordination of existing standards, those under study and those to be established. The standardisation of new graphic symbols, when requested by a technical committee, or when they do not fit into the activity of an existing technical committee. Excluded:

normalization of letters, numbers, punctuation marks, mathematical signs and symbols, and symbols for quantities and units. However, they can be used as components of a graphic symbol <sup>3</sup> (ISO, n.p.)

At ANBT, we found 41 standards in Portuguese involving graphic symbols for health, safety and the environment and marketed by the company Target Normas (<https://www.normas.com.br/>).

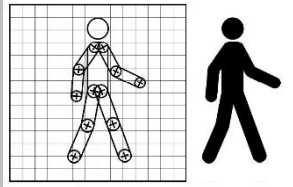
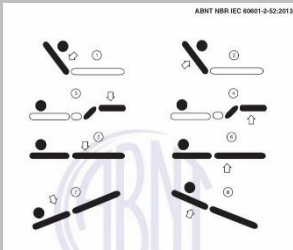
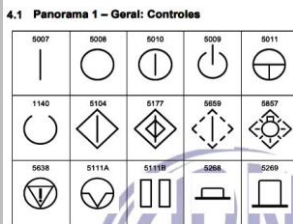
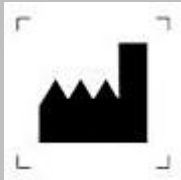
The selection criteria for the ABNT standards were: 1) to be in Portuguese, translated or elaborated for the national territory, 2) to be in force; 3) simultaneously address *graphic/colour symbol and health* (including in this concept of health issues relating to safety and the environment). The classification of the symbols into priority uses (general, health, safety and environment) was the author's and not the Association's.

The symbology standardized by ABNT (translated from another country or elaborated in the national territory) and marketed by Target Normas ([normas.com.br](https://www.normas.com.br/)) ranges from the general principles of pictogram design to its application on labels and medical equipment, in safety signs and in alerts for the correct preservation of the environment. As ABNT and the company that sells its standards (Target Standards) do not have a refined search system, the selection was made manually, standard by standard, from a simple search for standards with the terms *graphic symbols, pictograms, health, medical symbols, symbology, signage* in the *Target standards app*.

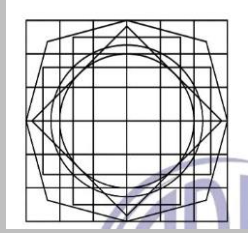
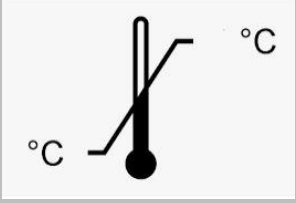




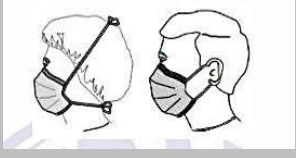
CODE OF THE CURRENT STANDARD <b>classification</b>	TITLE	EXAMPLE
ABNT NBR ISO 7001 of 6/2018 <b>general</b>	Graphic symbols – public information symbols (5th ed.de 2018)  <i>Silence symbols please PIBP 001, hospital PIPF 002, pharmacy PICF 007, lobby or waiting area PIPF 014, wireless internet PICF 018, priority seating PIPF 022 to 026 and 041, child health center PIPF 036, dentist PIPF 043, medical PIPF 044, accessibility PIPF 045 to 049 and 051, 055, 056, priority accesses PIPF 057 to 059 and 073, recycling PIPF 063 to 066, loop for the hearing impaired PIPF 072.</i>	
ABNT NBR 9186-1 of 5/2017 <b>general</b>	Graphic Symbols – Test Methods. Part 1 - Method for Testing Comprehensibility	

<sup>3</sup> Em inglês: Standardization in the field of graphical symbols as well as of colours and shapes, whenever these elements form part of the message that a symbol is intended to convey, e.g. a safety sign. Establishing principles for preparation, coordination and application of graphical symbols. General responsibility for the review and the coordination of those already existing, those under study, and those to be established. The standardization of new graphical symbols, when requested by a technical committee, or where it does not fall within the activity of an existing technical committee. Excluded: standardization of letters, numerals, punctuation marks, mathematical signs and symbols, and symbols for quantities and units . However, such may be used as a component of a graphical symbol.

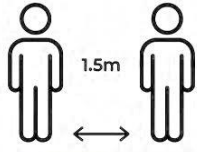





ABNT NBR 9186-2 of 6/2022 <b>general</b>	Graphic Symbols – Test Methods. Part 2 - Method for Testing Perceptual Quality	
ABNT NBR 9186-3 of 8/2018 <b>general</b>	Graphic Symbols – Test Methods. Part 3 - Method for Testing Association with Symbol Referent	
ABNT NBR ISO 17724 of 8 2013 <b>general</b>	Graphic symbols – vocabulary	
ABNT NBR ISO 22727 of 8/2013 <b>general</b>	Graphic symbols – Creation and design of public information symbols.	
ABNT NBR IEC 60601-2-52 of 3/2020 <b>health</b>	Electro-medical equipment – Part 2-52 Particular requirements for the basic safety and essential performance of hospital beds  <i>Hospital Bed Function Controls: Guidelines for Creating Graphic Symbols.</i>	
ABNT IEC/TR 60878 of 12/2020 Technical Report <b>health</b>	Graphic Symbols for Electrical Equipment in Medical Practice  <i>Symbols for controls, related to motion, electricity and electronics, light and optics, transportation, handling and packaging, safety, safety signs, equipment identification, symbols related to information and communication, image, imaging, audio, data, patient/person, patient positioning, medical instruments and blood processing, dentistry and dental equipment, patient monitoring, ultrasound, lithotripsy, electrosurgery, nuclear medicine, X-ray diagnostics, CT scans, MRI: functions, implantable active medical devices</i>	
ABNT NBR ISO 15223 – 1 of 7/2022 <b>health</b>	Medical devices – symbols to be used in information provided by the manufacturer. Part 1- General requirements.  <i>Symbols of manufacture, sterility, storage, safe use, specific for IVD, transfusion, infusion, others.</i>	



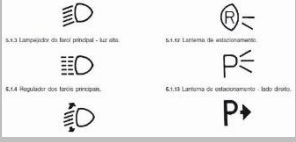



<p>ABNT NBR ISO 15223-2 of 9/2013 <b>health</b></p>	<p>Health products – symbols to be used on labels and information to be provided on health products – Part 2 – development, selection and validation of symbols</p> <p><i>Symbol model also used by IEC</i></p>									
<p>ABNT NBR ISO 16972 of 12/2015 <b>health</b></p>	<p>Respiratory protective equipment — Terms, definitions, graphic symbols and units of measurement</p> <p><i>Symbols to see information provided by the manufacturer, expiration, temperature, humidity.</i></p>									
<p>ABNT NBR 20301 from 12/2010 <b>health</b></p>	<p>Health informatics - Health cards – general characteristics</p> <p><i>Regulates visual information written on health card, layout examples.</i></p>									
<p>ABNT NBR ISO 21531 of 9/2012 <b>health</b> Brazilian standard</p>	<p>Dentistry — Graphic Symbols for Dental Instruments</p> <p><i>Symbols for prophylaxis, orthodontics, maxillary surgery, implantology, pivot, cavity preparation, removal of old restorations, preparation of restoration, preparation of crown, cutting of crown, preparation of root canal, smoothing of the apical surface, precision technique; mold casting technique, model making, acrylic technique, crown and bridge technique, ultrasonic bath, apparatus for washing and thermal disinfection, steam sterilization, sterile, hand washing disinfectant, disinfectant for manual and rotating instruments, disinfectant for work surfaces, disinfectant for floors and walls, disinfectant for dental printing materials, attention, See instructions for use, date of manufacture, keep dry, fragile, keep protected from sunlight, expiration date, do not reuse, number of uses, evolution, classification, cannot be sold separately, type of material, batch, reference, series, temperature limits, packaging unit, opened packages are not replaced.</i></p>	<table border="1"> <thead> <tr> <th>Símbolo</th> <th>Título/descrição/aplicação</th> </tr> </thead> <tbody> <tr> <td></td> <td>br: cirurgia maxilar en: jaw surgery fr: chirurgie maxilla-faciale de: Kieferchirurgie</td> </tr> <tr> <td></td> <td>pt: implantologia en: implantology fr: implantologie de: Implantologie</td> </tr> <tr> <td></td> <td>br: sistema de pivô (ponte móvel) en: post system fr: système à pivot de: Aufbaustüttsystem</td> </tr> </tbody> </table>	Símbolo	Título/descrição/aplicação		br: cirurgia maxilar en: jaw surgery fr: chirurgie maxilla-faciale de: Kieferchirurgie		pt: implantologia en: implantology fr: implantologie de: Implantologie		br: sistema de pivô (ponte móvel) en: post system fr: système à pivot de: Aufbaustüttsystem
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<p>ABNT PR1002:2020 Best Practice <b>health</b></p>	<p>Respiratory protection masks for non-professional use</p> <p><i>Photos &amp; Drawings</i></p>									



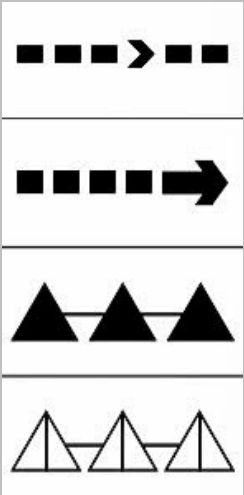



<p>ABNT PR1004:2020 Best Practice <b>health</b></p>	<p>Safe Operation in Organizations During Pandemic Situations</p> <p><i>Pictograms and drawings</i></p>	 <p>Figura 1 – Distância mínima de segurança</p>
<p>ABNT NBR ISO 3864-1 of 9/2013 <b>safety</b></p>	<p>Graphic Symbols – Colors and Safety Signs Part 1: Design Principles for Safety Signs and Markings</p>	
<p>ABNT NBR ISO 3864-2 de 2018 <b>safety</b></p>	<p>Graphic Symbols - Safety Colors and Safety Signs - Part 2: Design Principles for Product Safety Labels</p>	
<p>ABNT NBR ISO 3864-3 de 2022 <b>safety</b></p>	<p>Graphic Symbols - Safety Colours and Safety Signs - Part 3: Design Principles for Graphic Symbols for Use in Safety Signs</p>	 <p>Figura 5 – Telefone de emergência (ISO 7010 0164)</p> <p>Figura 6 – Extintor de incêndio (ISO 7010 0165)</p>  <p>Figura A.7 – Exemplos de pictogramas de figuras humanas postas em perigo usando pontos de articulação – (modo de perfil)</p>
<p>ABNT NBR ISO 3864-4 of 2/2019 <b>safety</b></p>	<p>Graphic Symbols – Safety Colors and Signs Part 4 – Colorimetric and Photometric Properties of Safety Sign Materials</p>	



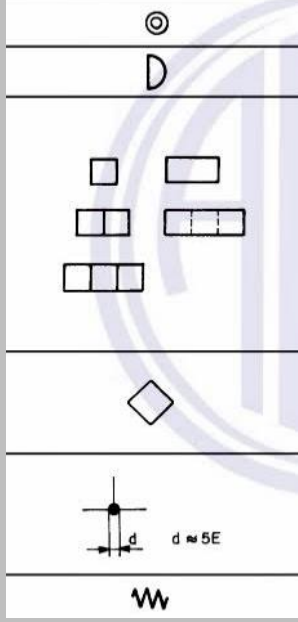
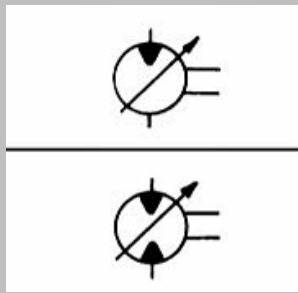
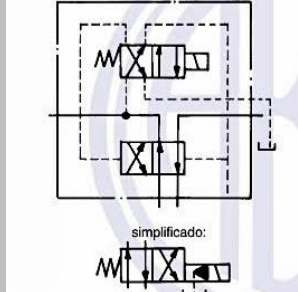



<p>ABNT NBR 5556 of 12/1986 <b>safety</b></p>	<p>Symbols for identification of controls, indicators and pilot lights of road and industrial vehicles, self-propelled road machinery and agricultural tractors</p>	
<p>ABNT NBR 7195 of 7/2018 Brazilian standard <b>safety</b></p>	<p>Colors for safety</p>	
<p>ABNT NBR 7392 of 7/2010 <b>safety</b></p>	<p>Ground support equipment – pictographic symbols for identification of equipment controls</p> <p><i>Pictographic symbols used for ground support for use in airports.</i></p>	
<p>ABNT NBR 7500 of 3/2023 13th ed. <b>safety</b></p>	<p>Identification for ground transportation, handling, movement, and storage of products</p> <p><i>Risk Labels</i></p>	
<p>ABNT NBR ISO 11684 of 5/2013 <b>safety</b></p>	<p>Tractors, agricultural and forestry machinery, motorized lawn and garden equipment - safety signs and hazard pictograms - General principles.</p> <p><i>Pictograms of chemical hazards, electrical hazards, fall hazards, fluid hazards, crushing hazards, cutting hazards, entrapment hazards, throwing objects, trampling hazards, stability hazards, accumulated energy release hazards, thermal hazards.</i></p> <p><i>Risk prevention pictograms, safety signs, drawing of the human figure, profile head, palm of the hand, inclusion of the hand to the human figure, feet, addition of feet to the human figure, arrows, prohibited action or place of risk.</i></p>	

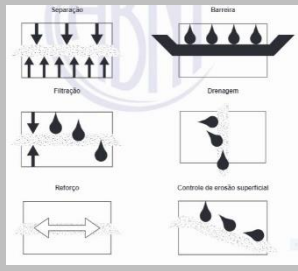
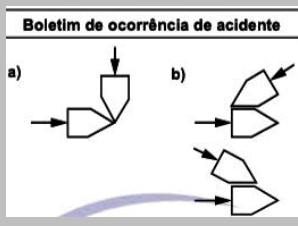


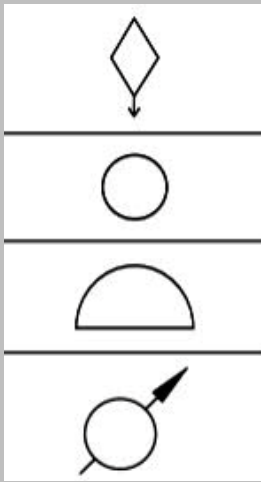


<p>ABNT NBR 14100 1998 Revision <b>safety</b></p>	<p>Fire Protection – Graphic Symbols for Design</p> <p><i>162 Abstract symbols- with geometric shapes for inclusion in plans or designs.</i></p>	
<p>ABNT NBR 14725 -3 of 8/2017 <b>safety</b></p>	<p>Chemicals – safety, health and environmental information Part 3 – labelling</p> <p><i>Hazard symbols (bomb exploding, flame, flame over circle, gas cylinder, corrosion, skull and crossbones, exclamation mark, hazardous to health, environment)</i></p>	<p>Símbolo de perigo</p> 
<p>ABNT NBR 16330 of 7/2022 <b>safety</b></p>	<p>Auxiliary devices- Barriers for signaling various types I, II and III and trestles (supports)</p>	 <p>Figura 4 – Exemplos de cavalete (suporte) articulado</p>
<p>ABNT NBR 16820 of 5/2022 <b>safety</b></p>	<p>Emergency signalling systems – Design, requirements and test methods</p> <p><i>Prohibitory signs, warning signs, guidance and rescue signs, equipment signs, escape plan.</i></p>	 <p>Figura A.12 – Sinalização de rota continuada em portas de acesso Verificar os requisitos de construção e demarcação de abertura de portas em 6.5.6</p> <p>Figura A.13 – Sinalização de combate a incêndio para níveis superior e inferior</p>
<p>ABNT NBR 6493 of 11/2019 <b>environment</b></p>	<p>Use of colors for identification of industrial pipes</p>	

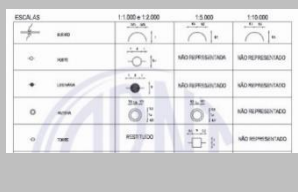



<p><b>ABNT NBR 8896</b> of 6/1985 <b>environment</b></p>	<p>Graphic Symbols for Hydraulic and Pneumatic Systems and Components - Basic and Functional Symbols</p> <p><i>Graphic symbols to be used in diagrams and hydraulic systems; energy sources; flows and connections; Reservoirs; accumulators, filters and lubricators; heat exchangers and mechanical elements.</i></p>	
<p><b>ABNT NBR 8897</b>de 6/1985 <b>environment</b></p>	<p>Graphic symbols for hydraulic and pneumatic systems and components, energy transformations</p> <p><i>Symbols for use in diagrams: pumps and compressors; Engines; Bombs; variable speed drive units; Cylinders; pressure intensifiers; Hydropneumatic converters</i></p>	
<p><b>ABNT NBR 8898</b> of 6/1985 <b>environment</b></p>	<p>Graphic Symbols for Hydraulic and Pneumatic Systems and Components – Power Distribution and Scrolling</p> <p><i>Valve Symbols</i></p>	
<p><b>ABNT NBR 9050</b> of 8/2020 <b>environment</b></p>	<p>Accessibility to buildings, furniture, spaces and urban equipment.</p> <p><i>International Symbol of Access, International Symbol of Visually Impaired, Hearing Impaired, Symbol of Preferential Care, Guide Dog Accompaniment, Toilets, Circulation Symbols, Communication Symbols</i></p>	 <p>a) Branco sobre fundo azul    b) Branco sobre o fundo preto    c) Preto sobre o fundo branco</p>



<p>ABNT NBR ISO 10318-2 of 9/2021 <b>environment</b></p>	<p>Geosynthetics Part 2: Symbols and Pictograms <i>Symbols and pictograms of products, functions, protection, applications.</i></p>	
<p>ABNT NBR 10696 of 9/2015 <b>environment</b></p>	<p>Traffic Accident Reports Accident Diagrams Graphic Symbols <i>(abstract symbols to explain accidents)</i></p>	
<p>ABNT NBR 13193 Brazilian Standard <b>environment</b></p>	<p>Use of colors for the identification of industrial gases <i>(in conjunction with ABNT NBR 6493)</i></p>	
<p>ABNT NBR 13230 of 11/2008 <b>environment</b></p>	<p>Recyclable plastic packaging and packaging - identification and symbology <i>Symbols for PET types</i></p>	
<p>ABNT NBR ISO 14021 de 9/2017 <b>environment</b></p>	<p>Environmental Labels and Declarations – Environmental Self-Declarations (Type II labelling) <i>Mobius Cycle Graphic Symbol</i></p>	
<p>ABNT NBR 14100 of 3/2002 <b>environment</b></p>	<p>Fire Protection – Graphic Symbols for Projects <i>Graphic symbols to be used in architectural projects in relation to fire protection equipment, ventilation, escape routes and emergency systems.</i></p>	



<p><b>ABNT NBR 15777</b> of 1/2009 Brazilian Standard <b>environment</b></p>	<p>Topographic Conventions for Cadastral Maps and Plans – Scales 1:10,000, 1:5000, 1:2000 and 1:1000 - Procedure</p>	
<p><b>ABNT NBR 16182</b> of 6/2013 <b>environment</b></p>	<p>Packaging and wrapping – symbology of guidance for selective disposal and identification of materials</p> <p><i>Symbols of: selective, recyclable materials.</i></p>	

As shown in the table above, between standards and technical reports, we have only 41 documents in Portuguese language standardized by ABNT/Target Standards:

- 6 general rules on public information symbols also applicable to the areas of health, safety and the environment;
- 9 related to the health area, including the dental area (medical and hospital equipment, dental instruments, breathing, pandemic);
- 13 relating to safety (colours, signs, fire, chemicals, tractors) and
- 13 related to the environment (accessibility, traffic, disposable packaging, geosynthetics).<sup>4</sup>

By the end of 2023, we will also have, in Portuguese, the ABNT NBR 7010:2019 standard - Graphic symbols — Safety colors and safety signs — Registered safety signs (category of use: safety).

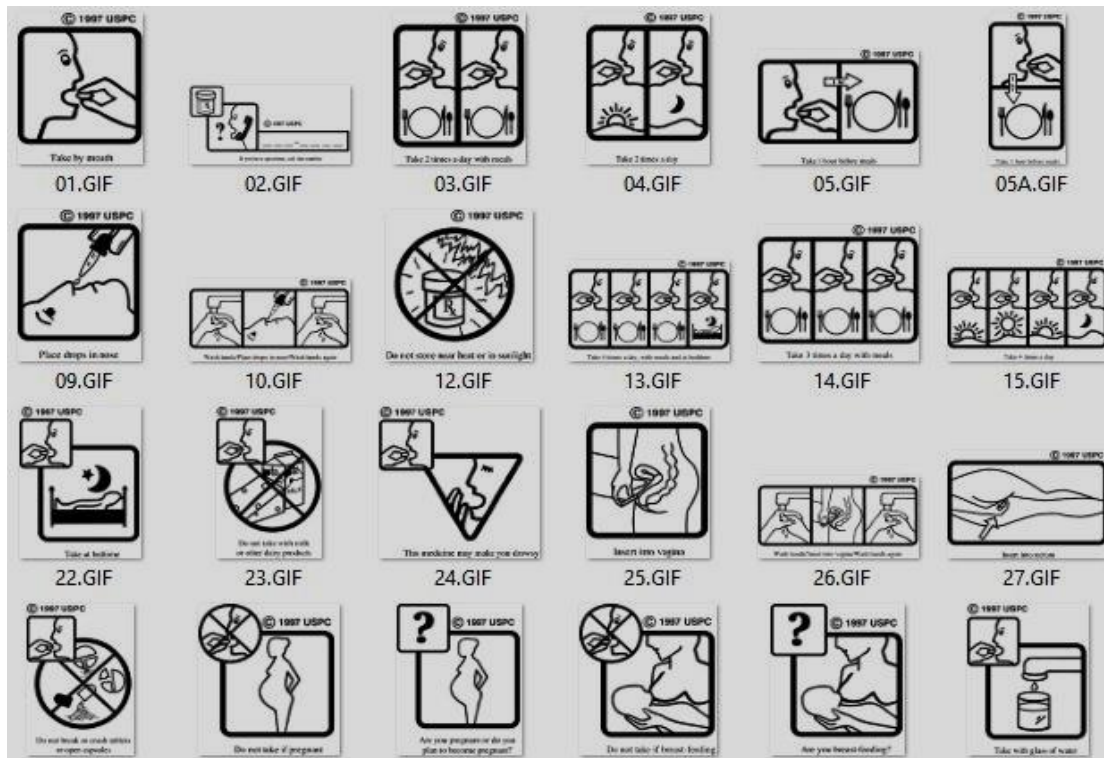
#### **4 INTERNATIONAL REPERTOIRES OF PICTOGRAMS IN THE AREA OF HEALTH - MEDICINES AND WAYFINDING**

In relation to medicines, we have two important references: the USP repertoire, from the *United States Pharmacopeia, developed between 1989 and 1997 in the USA (with 81 symbols) and the repertoire from the Risk-Benefit Assessment of Drugs (RAD-AR )*, developed in Japan (with 51 symbols). In both repertoires, the graphic symbols represent instructions on the correct way to use remedies (oral, nasal, sublingual, etc.), on frequency, the correct way of storage, and warnings of use (side effects, restrictions, etc.).

<sup>4</sup> The standards were categorized into "general, health, safety and environment" by the author, not by ABNT or Target.



Figure 2 Some examples of pictograms from USP, *United States Pharmacopeia* (total: 81 symbols).



Source: <https://www.usp.org/health-quality-safety/usp-pictograms>

Figure 2 Pictograms of the *Risk-Benefit Assessment of Drugs* (RAD-AR), Japan. Sources: MATOS, Ciro. p. 114-116 (<https://teses.usp.br/teses/disponiveis/27/27154/tde-21102010-093920/publico/5467786.pdf>) and INFODESINOW, <http://infodesignow.blogspot.com/2008/03/pictogramas-em>





In relation to visual programming and *wayfinding in* hospitals, we have the pioneering contribution of Ronald Shakespear (Diseño Shakespear <https://shakespearweb.com/>) to the network of municipal hospitals in Buenos Aires and the recognized North American project, called *Hablamos Juntos*, present in American hospitals such as *Women & Infants Hospital* (Providence); *International Community Health Care Services* (Seattle); *Children's Mercy Hospital* (Kansas City) and *Grady Health System* (Atlanta).

Figure 3 Shakespear Design Studio. Pictograms for municipal hospitals in Buenos Aires, 1976. Concepts (left to right): Maternity, Newborns, Infirmary, Medical Care, Blood Bank, Surgical Care. Source: OTA, p.306.

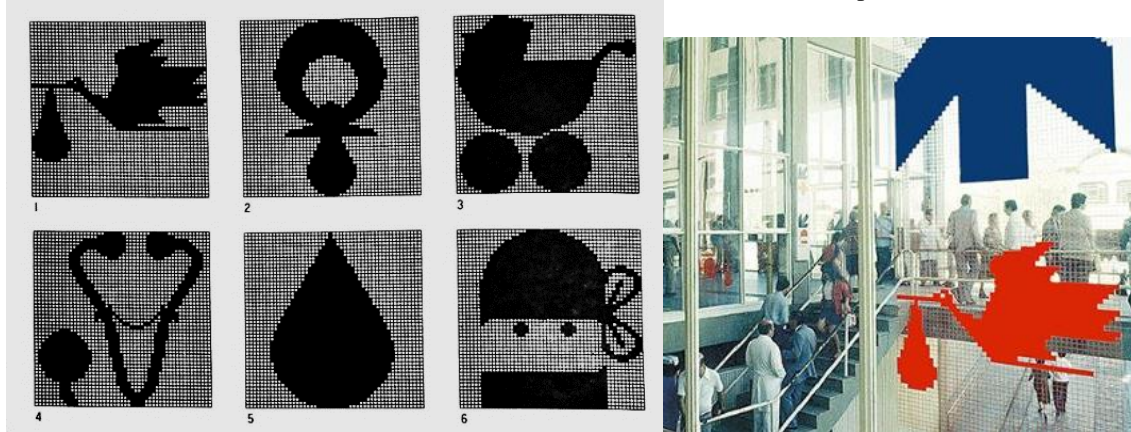


Figure 4 Project *We Talk Together*, graphic signage in U.S. hospitals for people with low English literacy, in partnership with *R.W.Jonhson Foundation* and *SEGD*. From 2003 to 2010, 54 symbols were developed for 4 partner hospitals: *Women & Infants Hospital* (Providence); *International Community Health Care Services* (Seattle); *Children's Mercy Hospital* (Kansas City) *Grady Health System* (Atlanta).

### Universal Symbols in Health Care

Clinical & Medical Services	
<p><b>Clinical &amp; Medical Services</b></p> <p>CM01 Health Services            CM02 Care Staff Area            CM03 Intensive Care            CM04 Inpatient            CM05 Outpatient            CM06 Pharmacy            CM07 Diabetes (Education)            CM08 Family Practice            CM09 Immunizations            CM10 Nutrition            CM11 Alternative / Complementary            CM12 Laboratory            CM13 Pathology            CM14 Oncology            CM15 Ophthalmology            CM16 Mental Health            CM17 Neurology            CM18 Dermatology            CM19 Ear, Nose &amp; Throat            CM20 Respiratory            CM21 Internal Medicine            CM22 Kidney            CM23 Cardiology            CM24 Women's Health            CM25 Labor &amp; Delivery            CM26 Pediatrics            CM27 Genetics            CM28 Infectious Diseases            CM29 Dental            CM30 Anesthesia            CM31 Surgery            CM32 Physical Therapy</p>	
<p><b>Facilities &amp; Administrative Services</b></p> <p>FA01 Emergency            FA02 Ambulance            FA03 Registration            FA04 Waiting Area            FA05 Administration            FA06 Medical Records            FA07 Billing            FA08 Medical Library            FA09 Health Education            FA10 Interpreter Services            FA11 Social Services            FA12 Chapel</p>	



## 5 FINAL THOUGHTS

Despite the importance of the presence of these symbols in the signage of medical or hospital spaces, in drug forms and labels, in the understanding, memorization and adherence to health treatments and collective well-being practices, it is concluded that the country still has few normative documents in this regard, which evidences the need for public policies to mix design and visual communication professionals in multidisciplinary teams and projects in the areas of health. safety and environment.

The article specifies, in a table, the ABNT standards, identified by number and date of the last update, their characterization of use, a brief description of their content and an example of a corresponding graphic symbol. With this, we believe we contribute to a greater number of people committing to an active participation in the various open committees of the Association (ABNT) and in the contribution of design to the health of the population in general.

To participate in any technical committee or special study committee of ABNT, simply access the [www.abntonline.com.br/normalizacao](http://www.abntonline.com.br/normalizacao) website and inform which Technical Committee/Study Committee you want to participate in. If you would like to participate in the Special Study Committee 168 (on graphic symbols), you can also write to the secretariat of the Committee ([denise.araujo@abnt.org.br](mailto:denise.araujo@abnt.org.br)) to obtain the necessary step-by-step instructions; It is not a requirement to be an expert in visual communication.





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