HAUTE AUTORITÉ DE SANTÉ

RECOMMENDING
BEST PRACTICES

GUIDE

Initial key guiding principles for the use of generative AI in healthcare

in the health, social or medico-social sectors

C.**A**.**R**.**E**.: **C**omprehend – **A**scertain – **R**ate – **E**xchange

Adopted by the HAS Board on 23 October 2025

Description of the publication

Title	Initial key guiding principles for the use of generative AI in healthcare
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Contents

Introduction

Generative artificial intelligence (AI) systems are accessible to all health system users, and to health, medico-social and social sector professionals.

Some systems are readily accessible online and very easy to use, thanks to interfaces that allow interaction in natural language. Such systems can be used in health-related contexts without having been specifically developed for this purpose. In addition, specialised generative AI systems are being deployed to assist healthcare players.

Generative AI systems can be a lever for improvement to promote quality in the healthcare system. For this to be the case, they need to be used judiciously, for the benefit of individuals and to support professionals.

The French National Authority for Health (HAS) has published this educational guide aimed at health, social and medico-social sector professionals in order to support them in their initial adoption of generative AI and promote its proper use.

This educational and informative guide provides some initial key guiding principles for the use of generative AI in the healthcare context, along with additional recommendations to promote their adoption by a wide range of professionals and their applicability for multiple uses. Each professional will be able to apply these key guiding principles and recommendations to best suit their practice, organisation, resources, needs and uses of generative AI.

This first guide will be supplemented by other work. In particular, the HAS is developing a document aimed at individuals, users and patients, to promote the proper use of generative AI in healthcare. The HAS is also developing good practice guidelines to support user organisations and professionals in the proper use of AI systems - generative or otherwise - in a care context.

All this work is being carried within the scope of the HAS 2025-2030 strategic plan and, more specifically, as part of the key theme of digital technology and AI in healthcare, contributing to the development of a framework of trust for the use of AI in healthcare, the adoption of useful technologies by users, support for relevant uses, and the improvement of professional practices.

The method used to develop this guide is detailed in a Development report. This is published separately in order to make the guide itself easier to read, using a short and simple format in order to encourage its distribution and adoption.

A summary infographic presents the key guiding principles proposed in an informative way and on a single page.

Summary

Initial key guiding principles for the use of generative AI in healthcare in the health, social and medico-social sectors

Proper use of generative AI in healthcare is ensured with professionals in the CARE context

C.A.R.E. : Comprehend – Ascertain – Rate – Exchange

Before use

Before use : Choosing a generative AI system

- → Get information about generative AI from reliable sources
- → Get training in the use of generative AI systems
- → Choose a generative AI system consistent with your needs, practices, and personal working habits
- → Prioritise systems that provide a point of contact for communicating with the entity responsible for it
- → Prioritise generative AI systems that can specify the sources used in the generated content and enable these sources to be consulted

During use

During use : Using a generative AI system properly

- → Consider the appropriateness of use in view of the system's intended uses
- → Check with the entity responsible for the system that it documents the system's compliance with regulatory requirements for the intended use
- → Be explicit in your queries (context, objective, sources, etc.)
- → Verify that no information enabling direct or indirect identification of an individual or that is subject to medical confidentiality is shared
- → Check the sources used (title, source, date of publication, abstract, etc.)
- → Consider any generated content as a draft version to be reviewed and checked
- → Maintain your skills and the quality of your practice
- → Communicate with the person concerned to provide information using appropriate language

Continuously

Continuously : Improving your practice

- → Define the objectives to be met using the generative AI system
- → Prioritise generative AI systems that offer ongoing support

1. Generative AI needs to be properly used in order to realise its potential

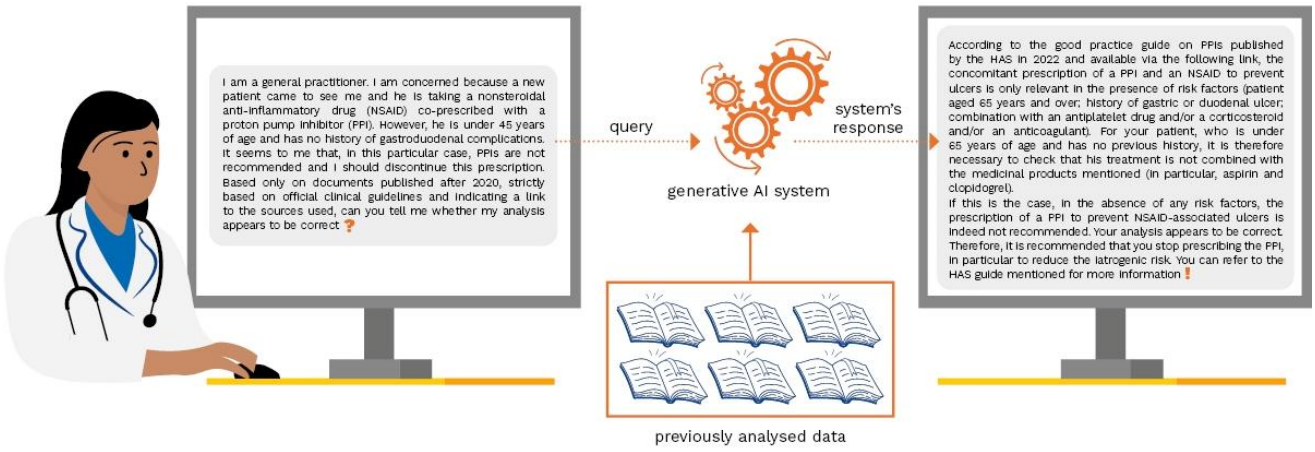
1.1. How generative AI works

AI systems operate using computer programmes that employ mathematical models. These systems can perform complex tasks, such as image identification, document classification, or decision support.

Generative AI systems are characterised by their ability to generate content, which may be text, images, sound, video, etc. These systems analyse large data sets in order to define probabilistic rules. The latter are then used by the systems to generate content similar to that to which they have had access. Content generated in this way is not guaranteed to be true, but corresponds to what the system considers to be most likely.

> **For example:** Generative AI systems not dedicated to health are available in the form of conversational user interfaces, such as Le Chat (Mistral AI) or ChatGPT (Open AI). In this case, the user submits a request or text instruction – often called a "query" or "prompt" – to the system via this interface. As illustrated in the following diagram, the system will then analyse this query to generate a textual response based on the probabilities of word occurrences, depending, in particular, on:
> - previously analysed data;
> - the formulation of the query;
> - the algorithms used.

Diagram: simplified operation of a generative AI system



1.2. Generative AI offers major potential benefits for the healthcare system

Generative AI systems can have numerous applications in the healthcare system, in the health, social or medico-social sectors. For example, these systems can be used to generate:

- transcripts of conversations recorded during consultations;
- pre-completed administrative forms;
- translations of texts and audio recordings for non-French speakers;
- transcripts of texts in language adapted to the recipients of the information;
- scientific literature summaries;
- documents illustrated with images to explain medico-social pathways;
- personalised audio responses to prevention questions;
- resource management aids.

These systems can therefore be an opportunity to reduce the administrative workload of professionals, freeing up their time to devote to patient care and support, improving their quality of work life, reinforcing the relevance of the tools they use and promoting the quality of their practices. The potential of generative AI systems is therefore significant in the healthcare setting.

1.3. The specific characteristics of generative AI lead to risks that need to be managed by proper use

Generative AI systems have limitations related to the way they work. The content generated may:

- contain errors, in particular by relying on data without verifying its accuracy, representativeness or currency;
- contain “hallucinations”, i.e. elements that do not exist, in particular based on probable connections without any guarantee of their factual reality;
- change over time, particularly dependent on updates to the algorithms used and changes in the data taken into account;
- be of variable quality according to uses, particularly depending on the quality of the prompts made by the user.

Their use may be associated with inappropriate practices, such as the transmission of confidential information or use outside the intended context.

In addition, generative AI systems have significant environmental costs. That is because some developments require large amounts of energy resources. Each use of a generative AI system also consumes energy, particularly when analysing the query and generating content, with this energy consumption potentially being significant.

Given the limitations of these systems and in order to ensure they are a lever for quality in healthcare, it is essential to promote their proper use.

2. Proper use of generative AI in healthcare is ensured with professionals in the CARE context

Each use must be mindful, supervised and judicious.

In order to guide health, social and medico-social sector professionals in their use of generative AI systems in healthcare, the HAS recommends implementing **C.A.R.E.** guidelines.

C.**A**.**R**.**E**.: **C**omprehend – **A**scertain – **R**ate – **E**xchange

These guidelines are:

- translated into **key guiding principles** that all professionals can easily implement;
- associated with **additional recommendations** that any professional can implement to further reinforce a quality approach, particularly if it is based on a collective framework (healthcare organisation, professional organisation, learned society, etc.).

Guideline 1. Comprehend: professionals learn how to operate and use the generative AI system

Professional users need to have a good understanding of the general principles of how generative AI systems work and how they are used in order to use them proficiently in the healthcare setting. Familiarity with these systems enables them to rapidly grasp the associated challenges, opportunities and limitations once they start using them.

1.1 Key guiding principle for professionals: inform yourself about generative AI

Gather information about generative AI from reliable sources by consulting institutional, professional, or scientific documentation on the subject.

> **For example:** Consult published scientific papers on the subject. Find out about the documentation available on institutional websites, such as those of the HAS, the *Conseil national du numérique* [French national digital council], regional health agencies, the French Data Protection Authority [CNIL], the French national agency for the assessment of health and medico-social system performance [ANAP], the French Ministry of Health, the French Nursing Association, the French National Academy of Medicine.

1.2 Key guiding principle for professionals: seek training in its use

Learn how to use generative AI through specialised courses, specific ongoing professional training, themed events, or exchanges organised by universities, national councils for healthcare professionals, professional organisations or learned societies.

> **For example:** Learn about how to use generative AI systems, the regulatory issues, and, in particular, rules relating to personal and health data confidentiality, and user oversight methods.

1.3 Key guiding principle for professionals: select your generative AI system carefully

Before selecting a generative AI system, consider a few questions to help you choose a system that is consistent with your needs, practices, and personal working habits. The Decision support guide for medical devices for professional use developed by the HAS can be transposed to generative AI systems and can be used to identify the questions that need to be asked before choosing this type of system.

> **For example:** A healthcare assistant who is in the habit of verbalising the actions they perform can easily integrate into their practice and benefit from a generative AI system based on voice capture to generate a text summary for the care team. The use of this type of solution requires a significant amount of information to be verbalised in order to produce a high-quality summary. However, such a system would not be very suitable for a healthcare assistant who prefers to record their actions in writing. In this case, a text-based generative AI system would be more appropriate.

1.4 Key guiding principle for professionals: communicate with the entity responsible for the system

Before selecting a generative AI system, prioritise systems that provide a point of contact for communicating with the entity responsible for its development. Failing this, consult the website and technical documentation prior to selection.

> **For example:** Communicate to obtain verifiable information relating to the infrastructure required for operation, the sources and types of data taken into account, possible settings, anticipated use scenarios, identified limitations, scientific assessments supporting claims, applicable obligations and regulations, data hosting conditions, human oversight procedures, the economic model and environmental impacts.

For more information

1.5 Additional recommendation for professionals: ensure communication with users

Before selecting a generative AI system, prioritise systems that provide information for communicating with other users, in order to benefit from feedback. If necessary, consult the national council for healthcare professionals for your speciality or your professional organisation, learned societies or user associations.

> **For example:** Communicate about how the outputs are used, perceptions of their quality and relevance in professional practice, changes in uses over time, consistency with needs, and economic sustainability.

1.6 Additional recommendation for professionals: experiment

Experiment by comparing as many different generative AI systems as possible to identify relevant uses for your practice and reinforce your knowledge and critical thinking around generative AI systems. Get involved in structured and, if possible, contractualised trials. Where possible and as needed, opt for collective practices in order to benefit from user support and promote continuous learning.

> **For example:** Put in place real-world use tests, defining their objectives, assessment criteria, conditions for success or termination, and duration. In the context of individual practice, contractualise and conduct trials in conjunction with an entity developing a generative AI system. In the context of practice within an organisation, healthcare facility or social and medico-social facility or service, experiment while ensuring that the organisation's governance – particularly in relation to the information system, legal management, financial management and quality system teams – is aware of, validates and is involved in the trial.

Guideline 2. Ascertain: professionals are attentive to the relevance of use, the quality of prompts, and checking of generated content

The use of a generative AI system must meet a professional need. The generative AI system must be appropriate to this need. Furthermore, when a generative AI system operates on the basis of text prompts, particular attention must be paid to how these prompts are formulated. For these systems, professionals must ensure that their query does not contain any information that contravenes data protection and confidentiality rules. In addition, for any system, each use must be supervised, with checking of the generated content by the professional.

2.1 Key guiding principle for professionals: check system compliance

Check with the entity responsible for developing the generative AI system that it documents the system's compliance with regulatory requirements for its intended use, in particular those relating to marketing authorisation and data protection rules. Watch out for institutional communications regarding regulatory changes.

> **For example:** For a generative AI system used for medical purposes to guide diagnostic decisions, request the instructions for use or technical documentation from the responsible entity and check that the system has valid CE marking for the intended conditions of use. Make sure that these elements comply with professional standards and regulatory requirements.

2.2 Key guiding principle for professionals: consider the appropriateness of use

Before each query, consider the appropriateness of using a generative AI system by verifying that the proposed use corresponds to the system's intended purpose. Use must be based on an analysis of the expected benefits in relation to the risks, particularly bearing in mind that each use has an environmental impact.

> **For example:**
>
> To generate a shift schedule for a temporary accommodation centre, use a generative AI system that takes into account the particular IT, organisational, regulatory and sector-specific characteristics of the facility. In fact, a generative AI system designed to draw up a schedule for a hospital department may not take into account these specificities and generate a schedule that is unsuitable for this type of centre.
>
> For generative AI systems accessible in the form of conversational user interfaces, such as Le Chat (Mistral AI) or ChatGPT (Open AI), make sure that their use actually adds value in view of the environmental impact they may have, and remove courtesies such as “hello”, “please” and “thank you” from queries so as not to consume unnecessary energy resources.

2.3 Key guiding principle for professionals: be explicit in your queries

Since a generative AI system operates on the basis of text prompts, make explicit queries specifying, in particular, the context of use, the purpose of use, the rules to be followed, and the sources and documents to be taken into account. Fine-tune the query if necessary, iteratively if required, based on the generated content.

> **For example:** To generate a document for discharge of a patient from an emergency department to a care home for the elderly, to be incorporated in the emergency department liaison file, explain in the query that the content is generated following an emergency situation and is aimed at care home professionals, that it must comply with the recommended format and content, and that it must be based on documents relating to the person concerned only. Specify which documents are to be taken into account in the query. Review the generated text before validating it.

2.4 Key guiding principle for professionals: do not share confidential information

Whenever a generative AI system is accessible on the internet or without a guarantee of data confidentiality, verify in each query that no information enabling direct or indirect identification of an individual or that is subject to medical confidentiality is shared.

> **For example:** In the absence of a guarantee that data confidentiality will be respected, remove any information relating to surnames, first names, initials, dates, postal addresses, email addresses, telephone numbers and social security numbers from the query.
>
> In the absence of a guarantee data confidentiality will be respected for a generative AI system used to capture sound, do not mention any first names, surnames, locations or other identifying information relating to the person concerned, yourself or any other person.

2.5 Key guiding principle for professionals: check sources

Prioritise generative AI systems that can specify the sources used in the generated content and enable these sources to be consulted, in order to verify that the generated content is based on scientifically valid information. Check that the documents indicated actually exist, are relevant and up-to-date in relation to the query (title, source, date of publication, abstract, etc.). Consult them if necessary in order to review their content and check them by referring to other reliable sources, in particular HAS publications. Beyond their use in healthcare, be transparent about any use of a generative AI system that has assisted in writing.

> **For example:** For the generation of a literature review on recommended treatments for Alzheimer's disease, a generative AI system that does not draw on current literature could generate content that incorrectly mentions acetylcholinesterase inhibitors as a treatment. Conversely, a generative AI system limiting the information selected to that from recent scientific sources could generate content indicating that, according to an assessment conducted in 2017, these inhibitors no longer have a role in the treatment of Alzheimer's disease given their insufficient clinical benefit, and could present solutions based on current and validated information. In any publication using generated content, indicate that a generative AI system has been used.

2.6 Key guiding principle for professionals: check generated content

Consider any generated content as a draft version that may contain errors that need to be checked, in particular by systematically verifying that it does not contain any obvious inconsistencies. In generated text content, systematically review each generated text before using it, paying particular attention to words that sound similar or have similar spelling. Reformulate the generated text where necessary. When copying and pasting generated text, be judicious, in particular by avoiding systematic use or use without verification.

> **For example:** In each item of generated text content, check the values and units of any quantitative measures (“mg/dose” versus “µg/dose”), the names of medicinal products and active substances (“cefuroxime” versus “ceftriaxone”), the management of any accents and pronunciations (“proscribe” versus “prescribe”).
>
> Do not copy and paste an entire generated text at once. Instead, copy and paste paragraph by paragraph, systematically reviewing each part separately.

2.7 Key guiding principle for professionals: maintain your skills

Improve your practices while maintaining your independence and individual professional skills. Ensure the quality of your practice is maintained so that you can deal with any technical malfunctions in the generative AI system or detect a decline in its performance. Each use can be an opportunity to continuously improve your practices by comparing the outcomes obtained with a generative AI system with the outcomes of a previous or parallel practice not using this system.

> **For example:** For any task that can be performed without using the generative AI system, continue to carry out some of this work without its use. For example, an emergency department triage nurse using a generative AI system to assist with patient triage while continuing to carry out some triage without this assistance will be able to perform this triage even if the system malfunctions. Assess the appropriateness of continuing, adjusting or discontinuing use by weighing up its actual benefits against its risks.

Guideline 3. Rate: professionals analyse the quality and suitability to needs of the generative AI system over time

Analysing and monitoring the actual performance, quality and suitability to needs of use of a generative AI system makes it possible to assess its relevance in professional practice and to ensure the quality of its use over time, as part of a continuous improvement process.

3.1 Key guiding principle for professionals: define your objectives

Before using a generative AI system, define the objectives to be met by this use.

> **For example:** Depending on needs, the objectives of using a generative AI system may be to enhance quality of care, optimise an organisation, or improve a professional practice.

For more information

3.2 Additional recommendation for professionals: implement a monitoring process

To enable a structured and objective analysis of the relevance of a generative AI system in a given practice, define quantitative or qualitative indicators based on your own objectives that best represent all the changes resulting from the use of the system. Ensure long-term monitoring of these indicators in line with available resources and time. It is particularly relevant to analyse changes in system performance over time. Wherever required, consult collaborative bodies, such as national councils for healthcare professionals, professional organisations or learned societies, to benefit from their support.

> **For example:** With a view to enhancing quality of care, take into account the number of corrections made and the quality of listening with the persons concerned.
>
> With a view to organisational improvement, take into account ease of use, integration into the workflow, user satisfaction and quality of work life.
>
> With a view to optimising practices, take into account the amount of content produced, the time spent formulating queries, the time spent reviewing generated content, the time spent on administrative tasks, and the costs of use.
>
> Wherever possible, track the results of indicators and regularly analyse their trends in a tracking file. Analyse differences between generated content and the content used after correction. Use these analyses to objectively assess successes and limitations.

3.3 Additional recommendation for professionals: analyse your uses

Carry out long-term analysis of your own uses, in line with available resources and time, as part of a continuous professional practice improvement process.

> **For example:** Use a tracking file to analyse the number of uses of the generative AI system, the number of generated contents questioned, and the uses made of the generated content. Analyse real-world use cases in order to retrospectively assess whether they correspond to the original purpose of the generative AI system. Check that these uses actually correspond to professional practice needs.

3.4 Additional recommendation for professionals: get involved within your organisation

In the context of practice within an organisation, healthcare facility or social and medico-social facility or service, engage with decision-making bodies in line with your resources and available time to assess the long-term relevance of uses and their organisational impact.

> **For example:** Participate in the institutional process of reporting and analysing indicators that may be implemented. Collaborate with governance to structure the monitoring and collective analysis of uses within the organisation. Promote transparency and the integration of uses and their analysis into a quality approach.

Guideline 4. Exchange: professionals communicate with their ecosystem as part of a continuous improvement process

Communication about the use of a generative AI system is essential to improve knowledge among patients and those receiving care, to limit risks and to improve the quality of practices. Long-term exchanges with entities developing generative AI systems and other users help promote continuous improvement in usages.

4.1 Key guiding principle for professionals: communicate with the person concerned

Communicate with the patient or person receiving care about the use of a generative AI system, employing appropriate language in order to reinforce their understanding and develop a relationship of trust.

> **For example:** Inform the individual or provide them with information about the types of data shared, the use of the generative AI system, and its purpose.

4.2 Key guiding principle for professionals: prioritise ongoing support

In addition to discussions prior to selection of a generative AI system, prioritise generative AI systems that offer ongoing support from the entity responsible for them, so that you can communicate with them whenever necessary and receive continuous support for the use of the system. Wherever possible, report major errors and limitations of generated content.

> **For example:** Share critical feedback with the entity in a structured and, if possible, contractualised manner on the quality of the generated content, the implementation of the system in practice, the suitability of the system to actual needs, user uptake, and the changes to be implemented.

For more information

4.3 Additional recommendation for professionals: communicate with users

In line with your resources and the time you have available, get involved in order to benefit from feedback and exchanges with other users over time, continuously build critical knowledge, and monitor developments in the ecosystem, the implementation of regulatory obligations and opportunities for use.

> **For example:** Throughout use, exchange with other users or participate in specialised events whenever possible, via national councils for healthcare professionals, professional organisations, learned societies, user associations, etc. Encourage the pooling and sharing of feedback, particularly with regard to the monitoring indicators put in place, the frequency of their analysis and how they are used in practice. Develop a transparency approach, particularly with regard to the types of data shared, user uptake and organisational impacts.

This document and its bibliographic reference are available to download at www.has-sante.fr

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Advancing quality in the fields of health and social care services

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