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# AI in health and care - Guidelines and ethics

This summary looks at the guidance that is available on Artificial Intelligence (AI) relevant for Wales, the UK, and beyond. It specifically includes guidance that may be relevant for AI in health and / or social care. It considers ethics relevant to AI and highlights ethical considerations which are helpful to explore when developing and implementing AI systems in health and care.

> **Disclaimer:** This evidence summary includes relevant literature identified from searches on the above topic, it is not an exhaustive list, it presents key finding and not recommendations for practice.

## Contents

# Guidelines for AI in health and care

## Wales

AI and Digital Regulations Service (AIDRS) provides a summary of regulations and guidelines and information relevant to the deployment of AI technology for adopters and developers in health and social care. These were jointly developed by 4 key regulatory and evaluation authorities for health and social care:

- National Institute for Health and Care Excellence (NICE)
- Care Quality Commission (CQC)
- Health Research Authority (HRA)
- Medicines and Healthcare products Regulatory Agency (MHRA)

AIDRS - Regulation and guidance for adopters [1]

AIDRS - Regulation and guidance for developers [2]

The Digital Service Standard for Wales shows what good public services look like in Wales, and how to achieve them.[3]

Welsh Government has released reports with guidance for the public sector:

- Managing technology that manages people: a Social Partnership approach to algorithmic management systems in the Welsh public sector [4]
- Using artificial intelligence at work: a benchmarking report on the awareness and understanding of artificial intelligence in the Welsh public sector [5]

Another report from Welsh Government has guidance relevant for schools. Generative artificial intelligence in education - Opportunities and considerations for schools in using generative artificial intelligence (AI) [6]

The Workforce Partnership Council agreement: partnership and managing change, explains how employers and trade unions can work in partnership including a section on managing the transition to a digital workplace. [7]

The Centre for Digital Public Services has a list of communities of practice that may be helpful for those developing or implementing AI.[8]

# UK

Online Safety Act 2023

The act is not specifically about AI, but it does mention automated tools. It imposes new legal duties and responsibilities on platforms to recognise their duty of care to their users. It also places greater responsibility on service providers to safeguard children and young people.[9]

Guidelines for secure AI system development

These National Cyber Security Centre guidelines are aimed at providers of any systems that use AI, whether those systems have been created from scratch or built on tools and services provided by others.[10]

Guidelines for AI procurement

The UK Government procurement guidelines are aimed at central government departments who are considering the suitability of AI technology to improve existing services or as part of future service transformation. Other public sector bodies may also follow these guidelines.[11]

A pro-innovation approach to AI regulation

A policy document from UK Government highlights guidance and approaches for AI implementation.[12]

Artificial intelligence playbook for the UK government

This guidance from UK Government will help government departments and public sector organisations harness the power of a wider range of AI technologies safely, effectively, and responsibly.[13]

Implementing the UK's AI regulatory principles: initial guidance for regulators

Voluntary guidance from UK Government for regulators to support them to implement the UK's pro-innovation AI regulatory principles.[14]

Data ethics and AI guidance landscape

This page collates the various existing ethical principles for data and AI, developed by UK Government and public sector bodies. It intends to provide clarity and guidance for public servants working with data and/or AI.[15]

Impact of AI on the regulation of medical products

The Medicines and Healthcare products Regulatory Agency policy paper on implementing the AI White Paper principles.[16]

AI in healthcare: navigating the noise

NHS Confederation's comprehensive guide supporting healthcare leaders to make sense of AI and explore the art of the possible.[17]

## Europe / World

This guidance may be relevant to those developing or supplying AI products to Europe and beyond.

The EU Artificial Intelligence Act

This website includes up-to-date developments and analyses of the EU AI Act, and has a compliance checker tool.[18]

Demystifying the EU AI Act – Implications for UK businesses

A webinar recording looking into the EU's Artificial Intelligence Act and discussing its implications for UK business.[19]

Harnessing artificial intelligence for health

The World Health Organization has a selection of strategies and guidance for AI in healthcare to uphold ethics and trust, including ethics and governance, regulatory considerations, generating evidence and a global strategy.[20]

# Ethics for AI in health and care

There are many ethical concerns to consider when it comes to the use of AI, especially within health and social care. Below is a summary of ethical considerations for developing / implementing AI in health and social care, identified from various guidelines, reports, and research articles:

- Decision-making errors – There is still a need for human autonomy, to maintain control over decisions.[21–27]
- Reviewing – Are the results accurate? How is this checked? Technology should be assessed, evaluated, and issues responded to, updating in accordance with any ethical or relevant wider changes. Reporting must accurately portray performance / capabilities.[21–23,27–30]
- Data protection adherence - Informed consent, privacy / confidentiality, data security, data quality, secure collection, secure storage and correct use of data.[21–34]
- Human well-being, safety and public interest – AI must not cause harm, meet safety, accuracy and efficacy standards, and benefits should outweigh any associated costs. Technology should supplement human care not replace it, human relationships remain necessary.[21,24–27,29–33]
- Transparency, explainability and intelligibility – Systems should be intelligible, transparent, and it should be explained how they work, how they make decisions, and how these decisions are used. This can help build trust including the trust of clinicians using the tools.[21,23,24,28–32,34]
- Responsible use – Staff should be appropriately trained / skilled, competent to use the technology responsibly and safely, and should be vigilant to errors.[21,22,27,28,30,32]
- Digital divide – Some people lack the necessary digital skills to utilise / access AI, this may exclude these people, populations or even nations. Technologies should be user friendly.[21,25,27,28,30,33]
- Accountability - If something goes wrong there needs to be accountability, it should be determined who is responsible and who is governing to oversee AI complies with standards / regulations.[21–24,27–29,32–34]
- Inclusiveness and equity – AI should be designed to encourage widest possible appropriate, equitable use and access, irrespective of age, sex, gender, income, race, ethnicity, sexual orientation, ability, etc.[21,23–25,27,27–29,31,33,34]

- Bias / algorithmic bias – There is a risk of bias in data used to train AI, data needs to be good quality. AI should not sustain or worsen existing forms of bias and discrimination or exacerbate inequalities.[21–24,28–34]
- Sustainable – AI should have minimal environmental consequences / impact, and should be financially sustainable, with funding for poorer areas.[21,24,33]
- Impact on labour / employment – Consider the impact of AI on changing work roles, or job displacement.[21,28,33]
- Co-produced - Co-produce technology with people who will use them (people who use care and support, unpaid carers, and care workers).[27]
- Public perceptions – AI needs to build public trust, this links with being transparent but also means marketing must be realistic and not misleading. Fears regarding loss of dignity, surveillance, feeling of isolation, and loss of human contact should be addressed, as these can impact willingness to use these tools and public acceptance.[22–24,26,28–30,32]

## Ethics toolkits / frameworks

The following are toolkits / frameworks not previously listed in the guidance section, that may help specifically support the ethical development and implementation of AI considering some of the ethical issues listed above:

- UK Government Responsible AI Toolkit[35]
- UK Government Data ethics framework[36]
- UK Government List of data ethics guidance, standards and frameworks[37]
- UK Statistics Authority Ethics self-assessment tool[38]
- European Commission Assessment List for Trustworthy Artificial Intelligence[39]
- NHS England The AI Ethics Initiative[40]
- Alan Turing Institute Understanding artificial intelligence ethics and safety[41]

# Search strategies

## Guidelines for AI in health and care

### Google / Google Advanced Search

A Google search was conducted to look for guidance specific to Wales, UK, and Europe, and any worldwide guidance. Then Google Advanced Search was used to ensure all relevant guidance was captured from key websites using domain names gov.wales and gov.uk.

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### Scopus

A search of Scopus was completed using the search terms below:

Ethics OR ethical OR concerns OR risks (title)
AND
Health OR care or "social care" OR "social services" OR "social work*" (abstract)
AND
AI OR "artificial intelligence" (abstract)

Due to the large number of results the focus for this report was on the most recent reviews (systematic, scoping, literature), and articles were reviewed until data saturation (no new themes were emerging).

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