Institute of Biomedical Science

Guidance and Support on the Use of Generative AI

To support candidates undertaking IBMS qualifications

Purpose of this guidance

This guidance is intended for anyone who supports learners across IBMS qualifications, including training officers, mentors, tutors and verifiers/examiners. It is intentionally high-level and principle-based so that it can be applied across qualifications and remain relevant as generative Artificial Intelligence (AI) tools continue to evolve. It focuses on underlying principles rather than specific tools, thresholds or technologies.

The guidance emphasises the safe, ethical and transparent use of AI that is required to protect our professional standards, learner development and patient safety.

Professional and regulatory responsibilities

Supporting appropriate AI use is part of wider professional responsibility. There is a burden on all registrants to:

- act in line with the HCPC Standards of Conduct, Performance and Ethics
- take reasonable steps to reduce risk of harm
- ensure learners are competent before independent practice

If a learner cannot demonstrate understanding of their submitted work, their progression must be paused until authenticity is established and it is certain that they are fit to practise.

The guidance in this document is underpinned by the following key documents:

HCPC Standards of conduct, performance and ethics
https://www.hcpc-uk.org/standards/standards-of-conduct-performance-and-ethics/

6.1 - *You must take all reasonable steps to reduce the risk of harm to service users, carers and colleagues, as far as possible.*

6.2 - *You must not do anything, or allow someone else to do anything, which could put the health or safety of a service user, carer or colleague at unacceptable risk.*

9.2 - *You must be honest about your experience, qualifications and skills.*

Joint statement from statutory regulators of health and care professionals - Using Artificial Intelligence (AI) in health and care professional education

https://www.hcpc-uk.org/globalassets/hubs/education-providers/final-joint-reg-statement-ai-in-education.pdf

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1. Why AI matters in IBMS qualifications

Generative AI tools such as ChatGPT, Microsoft Copilot and Google Gemini are now firmly embedded in the digital tools used by learners. Learners may be already using them for writing, reflection, study support and professional development. From an IBMS perspective, the key issue is not whether AI exists or how it works, but whether the work submitted by a learner:

1. genuinely reflects the learner's own knowledge, understanding, competence and experience
2. can be clearly explained and justified verbally
3. meets professional and regulatory expectations
4. does not compromise patient and service user safety

Across all IBMS qualifications, learners must demonstrate their own competence, judgement and integrity. AI use that undermines these principles undermines the validity of assessments and, ultimately, poses risks to patient safety.

2. Understanding generative AI at a high level

Generative AI predicts likely outputs based on patterns in its training data. It does not understand biomedical science, professional practice or context in the human sense.

AI outputs can sound confident while being incorrect. Gaps and biases may affect reliability, especially in uncommon topic areas which lack extensive training datasets for AI models. Any content generated always requires human oversight and verification.

AI should be treated as an assistive tool, not an authority. The learner remains fully responsible for all work that they submit.

3. Acceptable and unacceptable use of AI

Some use of AI may be acceptable where it supports learning rather than replaces it.

Potentially acceptable use:	Unacceptable use includes:
• organising ideas or structuring an initial draft • improving clarity, spelling or grammar • supporting reflection through guided prompts • helping to identify areas for further reading	• generating evidence wholesale • filling gaps in knowledge or correcting factual errors the learner does not understand • adding content that the learner could not reasonably produce independently and cannot articulate when asked questions

Acceptable use depends on three conditions:

1. There is transparency about how AI was used
2. The final work reflects the learner's own knowledge, understanding and reasoning
3. The learner can explain and defend the content verbally

4. AI detection tool scores

Tools such as Turnitin similarity reports and AI writing indicators can support professional judgement. However, it is important to recognise that they do not provide definitive answers. There is no percentage score that AI detectors can provide that proves conclusively that work is authentic or inauthentic. High or low scores must always be interpreted in context and should form a basis to prompt a professional discussion.

A reliable test of authenticity is professional dialogue. The learner should be able to confidently explain what they wrote, why they wrote it, how they developed the work iteratively and how it relates to their own practice.

5. Using professional conversations as an assurance tool

Regular discussion is central to assessing authenticity and supporting responsible AI use.

Good practice includes asking learners to talk through how they approached a piece of work / evidence, exploring why decisions were made, not just what was done and comparing written submissions with verbal explanations. The iterative nature of learning should be apparent in conversations with the learner which should be echoed in any review of successive submissions. An aim of discussions with the learner should be to normalise the use of AI to foster transparency about if and how it is being used. Oral assessments are also used

in the final assessment for some IBMS qualifications, so professional discussions can be framed as assessment preparation.

Where AI use is disclosed, reviewing earlier drafts of work or the prompts the learner used can help to distinguish between acceptable support and unacceptable content creation.

6. Designing assessment tasks to support authenticity

The capabilities of AI tools are evolving rapidly. While some tasks are easier for AI to complete more convincingly than others, the technology is becoming exponentially more adept at successfully undertaking a very wide variety of task types. How a task is designed can significantly mitigate the inappropriate use of AI.

More robust tasks typically:

- are rooted in the learner's own workplace and recent experience
- require explanation of reasoning and professional judgement
- include reflection on challenges, errors or development
- reference local processes, ranges, equipment or changes in practice

Even where tasks are fixed, adding follow-up discussion or reflective prompts strengthens assurance that the work produced is the learner's own.

Ensuring that learners have adequate time to undertake the task and understand what the task requires is very important. Learners under time pressure may be more likely to turn to AI tools and use them inappropriately.

Those who support learners should actively use generative AI tools themselves to better understand their current capabilities.

7. Key messages to reinforce with learners

Across all IBMS qualifications, learners should hear consistent messages:

- AI tools may be used to support learning, not replace it
- Transparency is expected
- Everything submitted must be the learner's own work which they understand and can defend
- Verbal discussion is a normal part of evidence preparation and assessment

Creating a shared understanding reduces fear, encourages honesty and keeps the focus firmly on competent and, most importantly, safe professional practice.

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