ALBERTA COLLEGE of OCCUPATIONAL THERAPISTS

Practice Guideline

Artificial Intelligence (AI) and Occupational Therapy

Prepared April 2026

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1. INTRODUCTION

This practice guideline supports occupational therapists (**registrants**) registered with the Alberta College of Occupational Therapists (ACOT) in the safe, ethical and competent use of artificial intelligence (AI) in practice.

AI tools are increasingly being integrated into healthcare, including **occupational therapy services**, in areas related to assessment, monitoring, documentation, intervention, education and administrative support. These tools can improve efficiency and enhance care. However, they also present risks related to accuracy, bias, privacy and human relationships that can impact the services provided to the public.

As AI becomes more common, whether introduced into practice by the employer, registrant or the client, registrants must be prepared to address and engage with AI responsibly. Registrants remain fully accountable for the professional services they provide. The use of AI must not replace the registrant's clinical reasoning, judgment or accountability, nor should it be used in ways that diminish the therapeutic value of the therapist client relationship or compromise the client's privacy, trust and safety. Any use of AI in occupational therapy practice must comply with all applicable regulatory and legal requirements.

Currently, Alberta and the Government of Canada have no comprehensive AI-specific legislation. AI use is governed through existing laws and policies, including privacy legislation, the *Criminal Code*, and sector-specific legislation (e.g., some AI-integrated medical devices are regulated under the *Food and Drugs Act*[1]), as well as regulatory colleges' standards of practice and codes of ethics. In Alberta's healthcare context, AI use is guided by legislation that demands client safety and privacy, such as the *Health Information Act* (HIA), the *Personal Information Protection Act* (PIPA), and the *Health Professions Act* (HPA). Professional regulatory colleges, including ACOT, require registrants to remain accountable for their use of AI in practice, by applying and upholding their ethical responsibilities and professional standards.

This guideline aligns with expectations outlined in ACOT's *Standards of Practice* (*SoP*), ACOT's *Code of Ethics* (CoE) and the *Competencies for Occupational Therapists in Canada* (2021/2024). OTs must also comply with applicable legislation. See Appendix A and Appendix B for a listing of relevant clauses and legislation. Descriptions of the words **bolded** in this guideline are found in the glossaries of the ACOT *SoP* and *CoE*. A plain language glossary of some AI-related terms is included in Appendix C.

[1] Canada's Food and Drugs Act and Regulations - Canada.ca

2. ARTIFICIAL INTELLIGENCE (AI) AND HEALTHCARE

Understanding AI

Gaining a basic understanding of what AI is and how it is integrated into technology can help registrants develop **competence** and make informed decisions about using AI in their occupational therapy practice.

AI refers to computer systems that can perform tasks usually requiring human intelligence, such as learning, reasoning and problem-solving. Unlike traditional software that follows fixed instructions, AI systems can analyze data, adapt over time through training and feedback, and generate outputs with minimal human intervention. These systems use large datasets processed through algorithms to create models designed to achieve objectives such as automating processes, supporting decision-making or generating insights. As users interact with the system over time, the system adapts and refines its responses/outputs.

AI can be built into technology in different ways, depending on what the tool is designed to do. The following occupational therapy relevant examples demonstrate some of the various applications of AI to technology:

- AI-enabled: AI is just one feature within a larger tool.
    - Scheduling software that predicts client no-shows and suggests optimal appointment times.
    - Adaptive equipment catalogs that recommend products based on client needs entered by the therapist.

- AI-powered: AI is the main engine behind the tool.
    - Virtual mental health assistants that guide coping strategies, track mood and provide reflective exercises.
    - Cognitive training apps that personalize exercises for memory or attention based on client performance.
    - Voice-controlled home automation systems that learn client routines and suggest accessibility improvements.

- AI-driven: AI makes decisions or controls processes with very little human input.
    - Robotic rehabilitation devices that adjust resistance or movement patterns automatically during therapy.
    - Smart prosthetics that adapt movement in real time without therapist intervention.

In practice, registrants may also find it helpful to think about AI tools in terms of additional ways they are encountered in occupational therapy services. Common categories include:

- Generative AI / large language model (LLM) tools: tools that generate or revise text, summaries, handouts, educational content, or draft documentation.
- Ambient scribes[2] / documentation tools: tools that record, transcribe, summarize, or auto-draft notes from client interactions.
- Clinical decision-support tools: tools that assist with assessment, goal setting, intervention planning, or evidence-informed recommendations.
- Monitoring / predictive tools: tools that analyze trends, forecast risk, monitor function or participation over time, or support proactive service planning.
- Embedded AI in assistive, adaptive, or rehabilitation technologies: tools built into equipment or devices such as wearables, smart home systems, prosthetics, robotics, or rehabilitation technologies that adjust or respond based on user data or performance.

AI in Healthcare and Occupational Therapy

Canadian hospitals and health care organizations are actively using AI to gain system efficiencies and better patient/client outcomes[3]. AI solutions have been implemented in Canada to predict levels of support needed to prioritize patient care; detect and diagnose cancers; predict whether patients are likely to benefit from chemotherapy; assist surgeons with laser eye surgeries and knee replacements; and enhance patient's access to timely mental health services and resources, to name a few.

In occupational therapy, there are several current and proposed applications of AI that have been explored in Canada and other countries. These examples range from using AI solutions to decrease administrative time by auto-drafting and summarizing documentation notes from an audio recording of a therapy session; to expediting evidence-based decision-making with AI clinical decision-support tools; to improving access in rural and underserved locations using wearable activity trackers that gather

[2] AI scribes are digital tools powered by artificial intelligence and natural language processing that assist clinicians by transcribing and summarizing patient interactions in real-time. AI Scribe Program | Canada Health Infoway. "Ambient" describes how the technology works passively in the background to capture the conversation in a non-disruptive manner.

[3] Toolkit for Implementers of Artificial Intelligence in Health Care September 2023 (Version 2.0), Canada Health Infoway AIToolkit_2023_V4_PDFUA_FINAL.pdf

data used to remotely monitor progress and adjust care. These AI OT use examples and more are summarized in Appendix D to give a sense of the variety of AI applications in occupational therapy.

Risks of AI in Healthcare

AI has the potential to positively impact healthcare, including for occupational therapists and their clients, when thoughtfully and responsibly implemented and used. Responsible use of AI includes being aware of the demonstrated and potential risks or unintended consequences associated with the AI technology being used. Some areas of risk include:

- Evidence: AI in healthcare and occupational therapy is relatively new. Research and evidence demonstrating efficacy and validity of its use is limited at present. Caution must be exercised when applying AI technologies that are not well tested or validated for the practice area or client population.

- Privacy and security: AI technologies used in healthcare typically collect, use and store client information. Client information may be vulnerable to breaches including cyberattacks and unauthorized use (e.g., not appropriate to healthcare or as consented to by the client). This can create risks for client privacy and reduce client trust.

- Accuracy and Bias: the accuracy of the outputs of AI systems is dependent on the quality and composition of the information put into the system, the algorithm design, and the prompts provided by the human user. AI systems are prone to generate inaccurate and incomplete outputs (e.g., hallucinations) and biases particularly when data input is not relevant to the prompt or to client factors (e.g., gender, socioeconomic status, ethnicity, geographical location, etc.). The potential for inaccuracy and bias underscores the importance for AI users to remain accountable for AI outputs used in the provision of services.

- Quality of the therapist-client relationship: when using AI tools that reduce direct interaction between the client and therapist, therapeutic rapport may be negatively impacted. AI use may require additional consideration by the registrant to ensure quality therapist-client relationships are maintained and align with client goals and needs.

- Over-reliance: AI creates a risk of relying too heavily on AI to do much of the thinking (e.g., analyzing, reasoning, summarizing, etc.), potentially leading to a

reduction in the therapist's critical thinking skills[4]. Means of supporting client needs without the use of AI may no longer be made available or therapists may no longer have the necessary skills. Users of AI need to ensure that their critical thinking skills remain intact and that back-up plans are in place for times when AI is not available (e.g., AI tool malfunction, power outages, etc.,).

Registrants planning to implement or use AI in practice should consider both the benefits and risks specific to the AI tool being used and the impact they may have on the registrants' provision of service, the client's service experience and client health outcomes. The registrant's responsibilities are further explored in the following sections.

3. FOUNDATIONAL PRINCIPLES & RESPONSIBILITIES

As registrants engage with AI technology in their practice, it is important to understand how AI intersects with their professional standards, ethical responsibilities and OT competencies[5]. This section highlights important principles, responsibilities and practical considerations to keep in mind when using AI in occupational therapy practice.

Accountability & Independent Judgment

Registrants remain fully responsible and accountable for the occupational therapy services provided by themselves and any individuals they supervise, including support personnel and students (Standard of Practice A. Accountability and Professional Responsibility A.3). They also carry an ethical obligation to exercise independent judgment in all aspects of practice (CoE A.4). These responsibilities do not change when a registrant incorporates AI into their work. Even when AI is introduced, approved or required by their employer or contracting organization, the registrant remains fully accountable for their use of AI when providing occupational therapy services. Additionally, any use of AI by a registrant must be relevant to the scope of practice for occupational therapists as defined in Schedule 15, section 3 of the *Health Professions Act* (HPA).

To uphold accountability and to prevent or minimize **risk** to the client, registrants must provide active and ongoing oversight when using AI. Given that AI systems can perform tasks that resemble human decision-making, registrants must consistently monitor,

[4] Gerlich M. AI Tools in Society: Impacts on Cognitive Offloading and the Future of Critical Thinking. *Societies*. 2025; 15(1):6. https://doi.org/10.3390/soc15010006
[5] ACOTRO, ACOTUP, & CAOT. (2021/2024).Competencies for Occupational Therapists in Canada

evaluate and direct the safe and appropriate use of AI tools, processes and interventions. This expectation aligns with ACOT's *Standards of Practice* K **Risk Management** and Safety; L Service Provision; and, in the context of supervising a person using AI, M. **Supervision**.

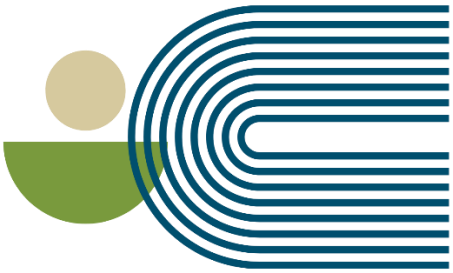
These accountability and oversight expectations apply equally when registrants supervise others in the use of AI. When supervising support personnel or students who use AI in occupational therapy services, registrants retain full accountability for all aspects of service delivery. In accordance with ACOT Standard M: Supervision, the registrant must determine whether and how AI may be used, ensure it is applied safely, ethically and within the supervisee's competence, and provide appropriate levels of supervision and review. Registrants must be transparent with clients about the supervisee's use of AI and obtain and document the client's informed consent accordingly in alignment with SoP M.6.

Maintaining accountability requires registrants to recognize that AI tools are supplementary; they should not replace the registrant's clinical reasoning, independent judgment or professional responsibility. Registrants must be competent in the AI tools they use, which includes understanding the tool's purpose, limitations and relevance to the client's context. They must be able to identify and mitigate risks, assess the accuracy and reliability of AI outputs across the tool's lifecycle, and establish strategies to identify and address errors or concerning "red flag" signs. Registrants must continually review AI-generated outputs and determine, through their own professional judgment, whether and how these outputs will inform service delivery. Ultimately, registrants remain answerable for their practice, including all outcomes when using AI.

Reflection Point

- What is the intended use of the AI tool you plan to use? Does it fit within the practice of occupational therapists as described in Schedule 15 of the HPA?
- What steps are you taking to ensure that you are exercising independent judgment to determine if and how the AI outputs will be used in the occupational therapy service?
- If a client introduces an AI tool into the service context (e.g., client chooses to use a personal AI chatbot for mental wellness), have you taken the time to jointly identify and document how the tool will and will not be used, the associated risks and ways of avoiding or managing the risks?

Although accountability and independent judgment form the foundation for safe application of AI, these responsibilities must also be grounded in the relational and humanistic principles central to occupational therapy. The following section considers how these values guide a human-focused approach to AI use.



Human-Focused Use of AI

AI is often seen as an innovative means to ultimately save time and money, and often at the expense of human resources and relationships. Therefore, in the very human context of healthcare, a human-focused approach to AI is essential to ensure AI serves to elevate and not undermine the compassionate core of client care[6]. A human-focused approach values human connection, empathy, compassion, client-centred care and a holistic understanding of individual experience.

Clients should be able to expect that their occupational therapist will **collaboratively** design, deliver and conclude a service plan that is responsive to their needs, priorities and circumstances (SoP L). Effective collaboration requires developing and maintaining relationships grounded in respect, trust, transparent information exchange and shared decision making (Competencies A1-A5). Within this context, a human-focused approach to AI in occupational therapy emphasizes that AI tools function as a support and must not replace or compromise the collaborative therapist-client relationship. Accordingly, the use of AI technologies in occupational therapy must be guided by a commitment to upholding the client's best interests and dignity (CoE B.1) as well as collaborative relationships and communication (Standard of Practice C. Communication C.2, C.4, C.5).

[6] Moretti, D. I. & Clarke, D. S. J. (2025). Reconciling Technology and Empathy: The Role of AI in Humanistic Medicine. International Research Journal of Medical Sciences and Health Care, 2(08), 1-5. https://doi.org/10.55640/irjmshc-v02i08-01

Reflection Point

- What will you need to do to maintain the quality of the therapeutic relationship when using an AI tool with your clients?
- What might you need to do to assess the appropriateness of AI-generated recommendations for individual clients?
- Thinking about SoP L.8, how and at what frequency should you get feedback from a client about their experience with using the AI tool?

Competence

Central to the integrity of the profession and remaining accountable in practice, is competence. Registrants should only use AI tools in their practice when they have the knowledge, skills, attitude and judgment to do so safely (Standard of Practice D. Competence D.3). Competence includes gaining a general understanding of how the AI tool functions, its evidence base, limitations and potential risks. When registrants are new to AI or identify a gap in competence, they must work within their limits (SoP D.1; Competency E1.2) and seek training or supervision before applying the tool in practice (SoP D.2; CoE A.2). If using AI, the OT must take steps to ensure they are competent to do so and that any person they supervise, that is also using AI, has acquired the necessary competence prior to assignment (SoP M.2 & M.4). Reflective practice and ongoing learning are required (SoP D.2, CoE A.1), as the competent and responsible use of AI depends on continuous professional development in response to evolving technologies; changing regulatory and governance requirements; and AI systems that are regularly updated or retrained with new data.

Registrants do not necessarily need to be a technical AI expert; however, they need to learn enough about the AI tool to ensure competent use that is safe and appropriate for the client and practice area. For example, a registrant can:

- Review AI developer information including documentation provided by the developer and/or vendor including the intended use, data sources, limitations and privacy legislation compliance (including completion of privacy impact assessments), user manuals and training materials.

- Confirm whether the tool is regulated, where applicable (e.g., AI-powered medical devices, categorized as Software as a Medical Device – SaMD[7], are regulated by Health Canada under the federal *Food and Drugs Act* and *Medical Devices Regulations*). Or confirm if it has been endorsed or verified by a reputable agency (e.g., see Canada Health Infoway's Pan-Canadian Procurement Process for selecting AI scribes[8]).

- When introducing a new AI tool, start with limited use (e.g., pilot test) as you strengthen your competence. Expand only as competent *and* after the AI tool's accuracy and appropriateness are established.

- If involved in procuring and or implementing a new AI tool, consult evidence-based resources such as Canada Health Infoway's Toolkit for Implementers of Artificial Intelligence in Health Care, September 2023 (Version 2.0) and the Artificial Intelligence Procurement Toolkit, Addendum to the Toolkit, October 2024 (Version 1). Ask vendors clear, non-technical questions such as "how do you prevent bias in your model? And how do you protect information entered in the AI tool? Do you retrain the AI tool with client data and how do you obtain permission to do this?"

Reflection Point

- Have you gathered and critically reviewed sufficient information about the AI tool to ensure your use is competent, safe and appropriate for the client and practice context?

- Did the AI developer/vendor provide sufficient information (e.g., data sources, algorithm training, secondary data use, privacy safeguards, use cases) to demonstrate that the tool would allow you to practice in compliance with ACOT's *Standards of Practice* and *Code of Ethics*?

- Are there training or peer mentorship opportunities from vendors, your employer or other organizations that would help you grow your knowledge and competence with AI?

[7] Health Canada. (2019, December 18). *Guidance document: Software as a medical device (SaMD): Definition and classification*. https://www.canada.ca/en/health-canada/services/drugs-health-products/medical-devices/application-information/guidance-documents/software-medical-device-guidance-document.html#a2.1

[8] Canada Health Infoway. (n.d.*). AI scribe program.* https://www.infoway-inforoute.ca/en/featured-initiatives/ai-scribe-program

Part of maintaining competence is the expectation that registrants must participate in and meet the requirements of the **Continuing Competence Program (CCP)** (SoP D.5). Central to the registrant's successful completion of the CCP is the registrant's active participation in reflective practice and learning. Given the risks associated with AI, particularly those related to accuracy, bias and over-reliance as noted previously in the document and in the following section, it is critical that the registrant does not engage in any use of AI that may negatively impact the registrant's independent reflections, acquisition of knowledge and skills, and overall learning, especially when participating in the CCP.

Accuracy, Bias and Reliability

Registrants intending to use AI in practice must evaluate whether an AI tool is appropriate for its intended purpose and suitable for the specific client, population and practice context (SoP L.7). This includes considering the tool's accuracy, biases and reliability, including how its performance may change over time. Identifying and mitigating associated risks helps to prevent harm and maintain accountability (SoP K; SoP L.4-6; Competency D3).

AI systems can produce different types of errors that may affect clinical safety and quality of care. These include factual inaccuracies or fabricated content, references, citations and laws (i.e., "hallucinations"); incomplete or misleading outputs; inappropriate generalizations; and over-confident recommendations that are not clinically justified. Errors may arise from limitations in training data, design constraints, inappropriate use outside the intended scope, or misalignment between the tool's purpose and the clinical task.

AI tools are also not neutral. Biases can be embedded in training data, algorithms or system design, leading to outputs that disadvantage or misrepresent individuals or groups based on factors such as disability, age, race[9], culture, language, gender or socio-economic status. If unrecognized, these biases can negatively affect assessment, recommendations, diagnoses, documentation and access to equitable occupational therapy service, as well as the client's health outcomes. Registrants have an ethical and professional responsibility to identify, mitigate and manage bias to ensure their use of AI supports impartiality, fairness and inclusion (SoP K.3-4, CoE B.1-2, Competency C3.7).

[9] Office of the United Nations High Commissioner for Human Rights. (2024, July 30). *Racism and AI: "Bias from the past leads to bias in the future"*. https://www.ohchr.org/en/stories/2024/07/racism-and-ai-bias-past-leads-bias-future

In addition, AI performance may change over time due to model drift, a gradual reduction in accuracy or relevance as client populations, clinical practices, data sources, or software versions change. Updates to AI tools, changes in vendor policies or retraining of models may alter outputs in ways that are not immediately obvious to users. Ongoing monitoring and re-evaluation by the registrant are therefore necessary.

Registrants remain fully accountable (SoP A.3) for validating any AI-generated recommendations, interpretations or documentation before use. AI must support, not replace, the registrant's professional judgment and clinical reasoning. To ensure alignment with Standard of Practice E. Documentation and Record Retention, all AI-assisted content included in the client record must be reviewed, corrected where necessary to ensure accuracy, and reflect the registrant's independent professional reasoning. Doing so supports the overall reliability of the AI-informed occupational therapy services and relevance to the individual client.

Reflection Point

Reflect on how you could incorporate the following actions into your practice. What would be the benefits to you and to your client(s) by doing these things?

- Review AI developer information about data sources, known biases or data limitations. Consider the transparency or lack of it regarding data sources and how this may impact AI outputs applicable to individual clients.
- Treat all AI outputs as provisional: actively check for inaccuracies, omissions, bias, or misalignment with the client's context before relying on them.
- Reassess AI tools regularly, especially after software updates, changes in practice context, or when working with new client populations.
- Document how AI outputs were reviewed, validated or modified, and clearly document, in the client's record, the OT's clinical rationale for decisions informed by AI.

Privacy and Confidentiality

When considering the use of AI, registrants must assess whether the proposed AI tool could compromise the privacy or confidentiality of client information and determine whether appropriate safeguards can be implemented or whether use of the tool should be avoided altogether. Registrants must uphold client privacy and confidentiality when using AI in occupational therapy practice (Standard of Practice I. Privacy and Confidentiality). Many AI tools used in healthcare process personal and health information. The collection, use, disclosure, storage and retention of this information are subject to Alberta and federal privacy legislation[10].

Registrants are responsible for understanding and complying with the privacy legislation applicable to their practice setting (SoP I.1). This requires critically assessing how an AI tool collects, uses, shares, stores and disposes of data, including client personal and health information. Registrants may only collect, use or disclose information for purposes for which they have legal authority and appropriate consent (SoP I.2 and C.3). Registrants are responsible for determining whether data are used solely to provide care or also for secondary purposes, such as training AI systems, monitoring performance or product improvement by the vendor. Legal authority and consent requirements vary by context and should be clarified in collaboration with employers or contracting organizations and, where needed, legal or privacy experts.

Registrants must take reasonable steps to prevent the disclosure of identifiable client information when using AI (SoP I.4-5). When determining disclosure and consent requirements, registrants must consider the type of AI system being used, including whether it is a closed or open system.

- Closed or enterprise-grade AI systems are typically designed to operate within controlled environments, with defined privacy protections, restricted data access, and contractual safeguards.

- Open, public or consumer-grade AI tools may retain, reuse or further process inputted information and often lack the safeguards required for handling personal or health information.

Registrants should exercise heightened caution when using open, public or consumer-grade AI tools. De-identifying information before entering it into these systems is not, on its own, a sufficient safeguard, as unique contextual details may still allow a client to be

[10] See the Office of the Information and Privacy Commissioner of Alberta Access and Privacy Laws | OIPC of Alberta and ACOT's Practice Guideline: Information Privacy and Management Legislation for privacy law information.

identified. Accordingly, identifiable client information must not be entered into these tools unless they have been formally approved for that purpose and all applicable legal, privacy, organizational and informed consent requirements have been met. Any privacy or security breaches must be addressed promptly and in accordance with applicable legislation and organizational policies (SoP I.7).

Registrants should also understand AI vendor data practices and remain alert to changes that may affect privacy or confidentiality. Depending on and in accordance with relevant legislation, organizations are expected to complete or update a Privacy Impact Assessment (PIA) before implementing new AI tools or systems. Registrants must seek alignment between vendor practices, organizational policies, privacy legislation, and ACOT's *Standards of Practice* and *Code of Ethics*.

Reflection Point

- What is the specific and authorized purpose for using the AI tool in your practice (e.g., direct service delivery, administrative support)? And will you enter personal or health information into the AI system, or could such information be inferred from the data being entered?
- What type of AI system is being used (closed/enterprise-grade versus open, public, or consumer-grade), and what privacy and data-handling risks are associated with that system?
- Considering the first two bullet points, is the AI system approved for the intended purpose and the type of information being entered, and have all applicable organizational approvals, legal authority, consent and privacy requirements been met? Have you ensured your clients' information and privacy are protected?

Transparency and Informed Consent

In general, clients should be informed whenever AI tools are used in their occupational therapy services. Registrants should exercise judgment in determining when it may or may not be appropriate to inform a client when planning to use AI and when **informed consent** to use AI is necessary. In most circumstances, the use of AI will require disclosure to the client and obtaining their informed consent.

As a general rule, disclosure is expected whenever AI directly affects client care, documentation, decision-making, or the handling of client information. Explicit informed consent is required whenever identifiable personal or health information is entered into, recorded by, stored in, analyzed by, or otherwise used by an AI tool. In contrast, disclosure may not be required for administrative or generic background uses of AI that do not involve client information and do not influence care, provided the registrant determines the risk to the client is minimal.

Informed consent must be obtained before using AI tools that record interactions, collect personal and health information, contribute to decision-making or use client data for AI system training and improvement. Consent discussions should clearly explain the purpose and function of the AI tool, how client data will be managed, potential risks such as inaccuracy or bias, available alternatives, how risks will be mitigated and the client's right to refuse or withdraw consent without consequence. Consent must be explicit and documented in the client record (CoE B.1–2, 4; Standard of Practice F. Informed Consent; Competencies B1.4, D1.2).

Reflection Point

- Does the use of the AI tool affect the client, their care, or their personal or health information in a way that requires disclosure and informed consent?
- How will you help the client to understand the AI tool and its role in the client's services? This includes explaining what the AI tool does and does not do, its intended use, how it affects care, how client information is handled, potential risks (e.g., inaccuracy and bias), and available alternatives, without relaying on technical or vendor-driven language.
- Have you obtained explicit, informed consent *before* using the AI tool, and has the client been given the opportunity to ask questions, refuse or withdraw consent without consequence?

Reflection Point

- Have you appropriately documented the informed consent process, including the client's understanding and agreement to the use of AI, in accordance with ACOT's Standard of Practice E. Documentation and Record Retention requirements?

Accessibility

Clients should have reasonable and fair access to the potential benefits of AI when it is offered as part of services. Clients may experience barriers related to digital access, connectivity, cost or technological literacy. Registrants should consider how these disparities may affect the quality, timeliness or consistency of care. Furthermore, registrants should strive to ensure that AI tools and their outputs are reasonably accessible and meaningful to clients considering varying abilities, including those with communication, physical or cognitive differences. This includes providing information, interfaces and explanations in formats that are understandable and responsive to individual needs. By incorporating these considerations, registrants demonstrate respect for the diversity, dignity and rights of all clients.

Reflection Point

- Consider Competencies C3.2 and C3.3 along with A6.1: "Support clients in accessing and using the resources to implement their plans." Before offering or integrating AI tools, consider whether the client has the technology, connectivity, skills or financial means to use them.
- What actions can you take to support your client's ease of access to the AI tool(s) used in practice? What would you need to adjust in the delivery of your services to avoid risks of delays, reduced quality or inconsistent care when integrating an AI tool into your service?

Environmental Sustainability

A human-focused approach also considers the well-being of the broader society. OTs have an ethical responsibility to carefully consider the social, ecological and economic implications of occupational therapy services within their professional sphere of influence (CoE D.7).

AI technologies require significant computing power, water and energy, contributing to carbon emissions and electronic waste through data storage, model training and frequent hardware upgrades[11]. To alleviate the environmental downside of large data centres, some countries have engineered a means of recovering harmful heat waste from the data centres and using it to heat homes[12]. As stewards of health and wellbeing, occupational therapists should consider the environmental impact of the tools they choose, including AI. OTs can contribute to quality care[13] by ensuring their adoption of AI supports environmental sustainability when feasible.

Reflection Point

- Using AI responsibly includes, where possible, selecting tools produced by companies with transparent sustainability practices, limiting unnecessary use of resource-intensive systems, advocating for organizational policies that support environmentally responsible technology procurement, and using AI with clients only when it adds clear value to the occupational therapy service and the client's goals. Are you using AI in a manner that takes into consideration environmental sustainability and responsible technology practices within your organization?

[11] United Nations Environment Programme. (2025). AI has an environmental problem. *Here's what the world can do about that*. https://www.unep.org/news-and-stories/story/ai-has-environmental-problem-heres-what-world-can-do-about

[12] Paulsson, L., Lundgren, K., & Pohjanpalo, K. (2025). *Finland's data centers are heating cities, too*. https://www.bloomberg.com/news/features/2025-05-14/finland-s-data-centers-are-heating-cities-too

[13] Health Quality Council of Alberta. (2025, July). *Alberta quality dimensions for health*. https://hqa.ca/wp-content/uploads/2025/07/Alberta-Quality-Dimensions-for-Health.pdf

Policy Development

Developing and maintaining policies for complex issues like AI use in healthcare is valuable because it can provide clear guidance and direction where uncertainty and the potential for risk or harm may be significant. Having policies in place with clear direction can also prevent having to make ad hoc decisions under pressure.

Reflection Point

- Is your use of the AI tool supported by clear organizational policy that addresses authorized and appropriate use, informed consent, privacy and accountability?
- Does the policy establish clear risk management guardrails that protect client information and define expectations for human oversight, including limits that prevent over-reliance on AI or use beyond its intended scope?
- If an AI error, misuse or privacy breach were to occur, do you know the required steps for reporting, documentation and client notification, and are these processes clearly outlined in policy?

Registrants are encouraged to collaborate with employers, contracting agencies and **colleagues** to understand and, where appropriate, contribute to organizational policies and procedures governing the safe, ethical and effective use of AI. Self-employed registrants who use AI are likewise encouraged to establish and maintain policies and procedures to support safe, ethical and effective AI use. (See SoP A.2-5; Competencies E2.1 and F4.2).

Documenting About AI Use and Documenting with the Help of AI

Registrants will encounter situations where they need to document about their use of AI. And they may choose or be expected to use AI to assist with documentation. Both instances require registrant competence, accountability and independent judgment.

In most cases, the use of AI in occupational therapy practice should be documented. Documentation is expected when AI meaningfully informs client care, clinical reasoning, recommendations, decision-making or the creation of the client record. Exceptions may exist where AI is used only for low-risk administrative or background purposes; does not involve identifiable client information; and does not influence client care or clinical decision-making. For example, using a generative, large language model (LLM) powered AI tool like ChatGPT, Gemini, CoPilot or Claude, to improve grammar or readability of a paragraph that does not contain identifiable personal or health information may not require disclosure to the client or obtaining the client's informed consent. Registrants must exercise independent judgment to determine the appropriate extent of documentation relevant to the client's occupational therapy services.

When documenting use of AI in the client record, documentation should include informed and ongoing consent to use AI and any other information about the AI tool and its role in the client's services that the registrant deems relevant to the service provision process (SoP E.3). The registrant should document the amount of detail that will be sufficient to allow the client's service plan to be continued by another colleague, if necessary (SoP E.2), taking into consideration the other colleague may not be familiar with the specific AI tool.

Reflection Point

- Did the use of AI technology contribute meaningfully to the client's services, clinical decisions or documentation? If so, consider what you should document about the use of AI and its impact on the client's services and health outcomes.
- Consider SoP M.10 and M.11. If you are supervising someone who uses AI as part of service delivery or documentation, what is your plan for reviewing and overseeing their documentation to ensure it is accurate, appropriate and reflects safe, ethical occupational therapy practice for which you remain accountable?

When using AI to document, registrants remain responsible for ensuring that all records are complete, accurate and consistent with ACOT's *Standards of Practice*, including Standard E. Documentation and Record Retention. Registrants should take steps to ensure clients are aware and consent to AI use whenever AI collects, stores and uses client information, or contributes to clinical reasoning or record-keeping. Documentation should reflect the registrant's independent reasoning, including how AI-generated recommendations were validated and any limitations or corrections applied (CoE D.2; Competencies E1.7).

Reflection Point

- What type of AI system are you using (e.g., open/public, closed/enterprise) to support your documentation, and is its use authorized within your practice or organization—or appropriately determined by you if you are the decision maker?
- Are safeguards in place to protect client privacy and confidentiality?
- If using an open AI system, what steps are taken to de-identify client information and remove contextual information that could identify a client, before it is entered into the AI tool?
- Has informed consent been obtained when required, particularly for AI tools used in real time documentation, report writing, editing, or any use involving identifiable client information?
- Have you independently verified the accuracy, relevance, and appropriateness of any AI generated output, made necessary edits or corrections, and ensured the final documentation reflects your professional judgment?

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5. APPENDIX A: RELEVANT CLAUSES AND INDICATORS IN ACOT'S *STANDARDS OF PRACTICE*, *CODE OF ETHICS* AND *COMPETENCIES FOR OCCUPATIONAL THERAPISTS IN CANADA*

While registrants must adhere to all ACOT *Standards of Practice* and *Code of Ethics*, some of the practice standards and ethical requirements most relevant to this guideline are listed below.

ACOT Standards of Practice

Standard	Applicable Section(s)
A. Accountability and Professional Responsibility	*2. Is knowledgeable of and practices in accordance with legislation relevant to their practice situation and ACOT's Standards of Practice and Code of Ethics.* *3. Is responsible and accountable for the occupational therapy services provided by themselves and any person(s) they are responsible for supervising.* *4. Takes reasonable steps to ensure employer or contracting organization policies, procedures or processes do not prevent the registrant from meeting the expectations outlined in ACOT's Standards of Practice, Code of Ethics and practice guidance documents.* *5. In situations of self-employment, has processes in place for themselves and any persons they are responsible for supervising, which are consistent with legislation relevant to their practice situation and ACOT's Standards of Practice, Code of Ethics and practice guidance documents.*
C. Communication	*2. Builds and sustains collaborative relationships by identifying persons with whom communication is important and communicates in a timely manner which promotes open exchange of information, mutual understanding, and coordination of services.* *3. Maintains confidentiality and receives a client's informed consent as required prior to communicating or sharing personal and/or health information with persons other than a*

Standard	Applicable Section(s)
	client. *4. Identifies any barriers to communication and uses approaches and technologies suited to each person's needs and context.* *5. Verifies understanding of the information being communicated and adjusts as necessary considering the recipient's communication preferences and styles.*
D. Competence	*1. Accurately represents and practices within their level of competence.* *2. Engages in reflective practice and ongoing learning to enhance their competence in practice throughout their career.* *3. Incorporates the required knowledge, skills, attitudes and professional judgment when delivering occupational therapy services.* *4. Takes appropriate actions in situations where they are not competent or prepared to deliver a particular service, are new to a practice area, and/or when their ability to provide services safely or competently is affected by illness, injury or substance use.* *5. Must participate in and submit each year during practice permit renewal the Continuing Competence Program (CCP) requirements established by Council and published in the Continuing Competence Program Manual including* *(a) a self-directed program for continuing competence; and* *(b) any additional requirements described in the Continuing Competence Program Manual (i.e., mandatory college-selected activities or training).*
E. Documentation and Record Retention	*Full Standard*

Standard	Applicable Section(s)
F. Informed Consent	*Full Standard*
I. Privacy and Confidentiality	*Full Standard*
K. Risk Management and Safety	*Full Standard*
L. Service Provision	*Full Standard*
M. Supervision	*Full Standard*

ACOT Code of Ethics

Code	Ethical Responsibility
A. Responsibilities for Self	*Registrants have an ethical responsibility to:* *1. Engage in reflective practice and continuous learning throughout their career to acquire, maintain and enhance competence in practice.* *2. Provide services only in areas of competence and seek support and additional education, training, mentorship or supervision when a gap in competence is identified.* *4. Exercise independent judgment.*
B. Responsibilities to Clients	*Registrants have an ethical responsibility to:* *1. Provide occupational therapy services that uphold the dignity of each client.* *2. Provide services to all clients in a respectful, unbiased manner. This entails not discriminating or refusing to provide services, including based on grounds protected under the Alberta Human Rights Act (see personal characteristics and attributes for the list of protected grounds).*

Code	Ethical Responsibility
	4. Respect and support a client's autonomy to choose whether to proceed with, decline or stop occupational therapy services, including in situations when a client does not have capacity to provide informed consent.
D. Responsibilities to the Public and the Profession	*Registrants have an ethical responsibility to:* *2. Recognize systems of inequity in their practice context and act within their professional sphere of influence to address and prevent racism and other forms of discrimination or oppression.* *7. Carefully consider the social, ecological and economic implications of occupational therapy services within their professional sphere of influence.*

Competencies for Occupational Therapists in Canada (ACOTRO, ACOTUP & CAOT, 2021/2024)

The competent occupational therapist is expected to:

A1. Establish trusted professional relationships with clients

A2. Use occupational analysis throughout practice

A3. Determine clients' needs and goals for occupational therapy services

A4. Assess occupational participation

A5. Develop plans with clients to facilitate occupational participation

A6.1 Support clients in accessing and using the resources to implement their plans.

B1.4 Adjust to power imbalances that affect relationships and communication.

C3.2 Facilitate clients' participation in occupations supporting health and well-being.

C3.3 Assist with access to support networks and resources.

C3.7 Raise awareness of limitations and bias in data, information, and systems.

D1.2 Engage in professional development activities to improve practice and ensure continuing competence.

D3 Monitor developments in practice.

D3.1 Stay aware of political, social, economic, environmental, and technological effects on occupational therapy practice.

D3.2 Keep up to date with research, guidelines, protocols, and practices.

D3.3 Appraise evidence related to knowledge and skills for practice.

D3.4 Integrate relevant evidence into practice.

D3.5 Consider the social, economic, and ecological costs of care.

E1.1 Respect the laws, codes of ethics, rules and regulations that govern occupational therapy.

E1.2 Work within personal scope of practice and area of expertise.

E1.3 Obtain and maintain informed consent in a way that is appropriate for the practice context.

E1.4 Protect client privacy and confidentiality.

E1.7 Be accountable for all decisions and actions made in the course of practice.

E2.1 Follow organizational policies and procedures and take action if they are in conflict with professional standards, client values, protocols, or evidence.

F4.2 Advocate for an alignment between occupational therapy standards and processes, organizational policies, social justice, and emerging best practices.

6. APPENDIX B: RELEVANT LEGISLATION

Registrants are required to be knowledgeable of and practice in accordance with legislation relevant to their practice situation. It is beyond the scope of this guideline to address all the legislation relevant to the use of artificial intelligence. Below is a list of legislation that may be relevant to the occupational therapy practice context.

Health Profession Legislation

- *Health Professions Act, RSA 2000, c H-7.*
- *Registrants Profession Regulation, AR 217/2006*

Provincial Legislation

- *Health Information Act, RSA 2000, c H-5*
- *Personal Information Protection Act, RSA 2003, c P-6.5*
- *Protection of Privacy Act, RSA 2024, c P-28.5*
- *Access to Information Act, RSA 2024, cA-1.4*
- *Limitations Act, L-12 RSA 2000*
- *Student Record Regulation, AR 97/2019*

Federal Legislation

- *Criminal Code, R.S.C. 1985, c. C-46*
- *Food and Drug Act, RSC 1985, c F-27*
- *Medical Devices Regulations*, SOR/98-282
- *Personal Information Protection and Electronic Documents Act, RSC 2000, c. 5*
- *Privacy Act, RSC 1985, c. P-21*

7. APPENDIX C: GLOSSARY OF AI-RELATED TERMS

Most glossary terms include a statement of relevance to occupational therapy.

Term	Definition (OT-Specific, Plain Language)
Artificial Intelligence (AI)	Computer systems or machines that can perform tasks that typically require human intelligence. These tasks include learning, reasoning, problem-solving, understanding natural language, perception (like vision and hearing), and decision-making.
Algorithm	A set of rules or calculations an AI system follows to make predictions or generate output.
Machine Learning (ML)	A type of AI where computers learn from data to make predictions or decisions and get better with experience rather than being explicitly programmed. Applied to gait analysis, fall-risk prediction, and sensor-based monitoring in OT contexts.
Natural Language Processing (NLP)	A sub-field of computer science and AI that uses machine learning to enable computers to understand and communicate with human language.
Generative AI	AI that creates new content—such as text, images, or audio. Used by OTs for drafting notes, summarizing information, or creating educational materials, but must be verified.
Large Language Model (LLM)	A generative AI model trained on large amounts of text to understand and produce human-like language. Supports documentation, brainstorming, and communication tasks.
Model Drift	When an AI system becomes less accurate over time due to changes in real-world data or context. OTs must monitor and not assume tool accuracy remains stable.
Hallucination (AI Error)	When an AI tool generates information that sounds correct but is factually wrong or made-up. OTs must verify all AI-generated content before using it in practice.
Bias (Algorithmic Bias)	Systematic inaccuracies in an AI tool that may disadvantage certain groups (e.g., age, disability, culture). OTs must identify and mitigate biased outputs to ensure equitable, un-biased care.

Term	Definition (OT-Specific, Plain Language)
Explainability / Transparency	How clearly an AI tool can show how it arrived at its outputs. Tools with low transparency require more OT oversight and cautious use in clinical reasoning.
Automated Decision System (ADS)	Technology that makes or assists decisions automatically—such as risk scores or prediction tools. OTs remain fully responsible for clinical judgment and outcomes.
Software as a Medical Device (SaMD)[14]	Software that performs a medical function without needing a physical/hardware device. Examples include AI-based fall-risk tools or movement-analysis apps. May require Health Canada approval.
Training Data	The data used to teach an AI system how to perform tasks. Poor-quality or non-representative data can lead to errors or bias in outputs used during OT practice.
De-identification / Anonymization	Removing identifying information so data cannot be linked back to a person. Even de-identified client details may still pose privacy risks if highly specific.
Adaptive Algorithm	An AI system that updates or adjusts itself after deployment. OTs must monitor changes because performance can shift without notice.
Synthetic Data	Data artificially generated to resemble real-world data, used to test or train AI tools. Useful for development but may not represent diverse clinical populations.
Human Oversight	The OT's duty to verify and evaluate AI-generated outputs and ensure they support safe, ethical, client-centred practice.
Use Case (Clinical Application)	A defined scenario where AI is used in OT, such as automated transcription or remote monitoring. Use must align with client needs, consent, and OT standards.

[14] Guidance Document: Software as a Medical Device (SaMD): Definition and Classification - Canada.ca

8. APPENDIX D: EXAMPLES OF AI IN OCCUPATIONAL THERAPY

The following table provides some examples of how AI is being used in occupational therapy. The list was compiled using AI and validated by a human review. The list is not meant to endorse or validate the suitability or use of the specific AI examples in occupational therapy services.

Category	Practical Example	OT Use Case	Objective
Intelligent documentation	NLP-enabled clinical notes (digital scribe) auto-draft SOAP notes from session audio	Reduce documentation time; standardize notes; support billing quality	Decrease administrative time; improve accuracy; faster plan updates
AI-enhanced assessment	Computer vision & sensors to quantify fine-motor control and gait	Objective measures to complement observational assessments	Higher sensitivity to subtle changes; better baseline & progress tracking
Clinical decision support (CDS)	AI suggestions for assessments, goals, interventions in EMR	Evidence-informed planning; surface guidelines at point of care	Faster decision-making; more consistent evidence use
Predictive analytics	Identify clients at risk of decline; forecast outcomes	Proactive outreach; prioritize caseload; prevention-focused care	Reduced waitlists; earlier intervention; targeted services
Wearables & remote monitoring	Home activity, sleep, HR tracked via wearables with AI trend analysis	Remote progress monitoring; telehealth-informed adjustments	Improved access in rural/underserved; continuous insights
Virtual Reality & AI-driven avatars	Virtual grocery store; affective agents simulate ADLs	Safe practice of cognitive/motor tasks; graded exposure	Higher engagement; standardized scenarios; repeatable training

Category	Practical Example	OT Use Case	Objective
Pediatric OT applications	ML for early motor/cognitive assessment; gamified adaptive tasks	Early diagnosis and individualized pediatric interventions	Higher motivation; tailored difficulty; remote follow-up
Robotic assistive tech	Soft robotic gloves, exoskeletons with AI feedback	Repetition & precision in upper-limb rehab; task-specific practice	Increased intensity; measurable progress; adaptive assistance
Administrative workflow	Generative AI for client letters, handouts, checklists	Improve communication & patient education assets	Faster turnaround; consistent plain language
Education & training	AI-powered virtual patients; robotics in curricula	Prepare students for tech-enabled practice; simulate complex cases	Greater readiness; standardized exposure to scenarios

(Abbreviations: NLP – natural language processing; EMR – electronic medical record; HR – heart rate; ML – machine learning;)

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