



COLLEGE OF
LICENSED PRACTICAL NURSES
OF ALBERTA

Practice Guideline

Evidence-Informed Practice

Approved: September 25, 2020



This document is linked to legislation:

[Health Professions Act](#)

[Licensed Practical Nurses Profession Regulation](#)

This document is linked to other documents that direct expectations of professional behaviour or requirements for practice:

[Standards of Practice](#)

[Code of Ethics](#)

[Entry-Level Competencies for Licensed Practical Nurses](#)

[Competency Profile](#)

This document is linked to related supportive documents:

[Cultural Competence and Inclusive Practice](#)

[Social Media: e-Professionalism for Nurses](#)

REVISIONS and UPDATES

Practice Guideline: The legislative mandate of the College of Licensed Practical Nurses of Alberta (CLPNA) is to serve and protect the public by ensuring its members deliver safe, competent and ethical nursing care. A Practice Guideline is an evidence informed document designed to assist membership with making decisions about appropriate practices. These documents support professional judgment and permit flexibility in practice.

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INTRODUCTION The Canadian Council of Practical Nurse Regulators (CCPNR) defines evidence-informed practice as “the ongoing process that incorporates evidence from research, clinical expertise, client preferences, and other available resources to guide practice decisions.”¹

The College of Licensed Practical Nurses of Alberta’s (CLPNA) role is to protect the public through regulating Licensed Practical Nurses (LPNs). Safe nursing practice incorporates professional judgement and evidence.²

Evidence-informed practice is integral to quality nursing care and should be incorporated into all steps of the nursing process, including nursing assessments, diagnosis, planning, implementation, and evaluation.³

All LPNs are responsible and accountable for adhering to the *Health Professions Act (HPA)*, the *Licensed Practical Nurses Profession Regulation, Standards of Practice for Licensed Practical Nurses in Canada, Standards of Practice on Restricted Activities and Advanced Practice*, and the *Code of Ethics for Licensed Practice Nurses in Canada*. These documents establish the foundation of LPN professionalism in the provision of practical nursing services. Additionally, the Competency Profile lays out the competencies related to evidence-informed practice.

This practice guideline is designed to complement standards of practice, the Code of Ethics, and the Competency Profile by providing LPNs with guidance on evaluating and integrating evidence into their practice.

PURPOSE The purpose of this practice guideline is to guide LPNs through the process of performing evidence-informed practice. Specifically, this practice guideline:

1. Explains evidence-informed practice and other related terms;
2. Describes components of evidence-informed practice;

3. Provides guidance on how to apply critical thinking to components of evidence-informed practice; and
4. Provides guidance on incorporating evidence in the decision-making process.

DISCUSSION OF EVIDENCE Some scholars use evidence-informed practice interchangeably with the terms: evidence-based practice; evidence-based medicine; evidence-informed decision-making; or evidence-based nursing.⁴

Others, however, suggest that evidence-informed practice is different from evidence-based practice. Evidence-based practice is a hierarchy-based model for practice that outlines the sequential steps someone takes to reach a clinical decision based on research evidence.⁵

Evidence-informed practice not only includes research evidence but considers the healthcare environment where care is provided, individual patient requirements, and clinical judgment of healthcare providers.⁶ Additionally, all of this must be considered within the broader legislative and regulatory context of LPN practice to allow for flexibility and the appropriate course of action.



Figure 1. Evidence-Informed Practice

Evidence-informed practice requires integrating research evidence, patient considerations, the healthcare environment, and clinical judgement with



the broader context. Evidence-informed practice involves a series of decisions based on these components using critical thinking skills.

Sources of Knowledge

While figure 1 highlights research evidence as a component of evidence-informed practice, LPNs find knowledge from a variety of sources. A research study conducted in 2016 found that Alberta LPNs frequently source knowledge for their practice from: individual patients, their nursing training, personal experience, in-services or conferences, and policy and procedure manuals. LPNs use nursing or medical journals, common nursing habits, and media as sources of knowledge less frequently.⁷

Sources of knowledge can also include cultural and traditional ways of knowing. This might include oral traditions passed down through generations and traditional medicine from cultural groups.⁸

High quality research evidence is considered the best quality source of knowledge; however, other sources of knowledge should be considered as part of robust clinical decision making.

Broader Context

When providing healthcare, it is important to consider the broader context. LPNs must follow Alberta legislation and regulation, Standards of Practice, the *Code of Ethics*, CLPNA policies, and employer requirements. This broader context further supports evidence-informed practice by shaping how you may incorporate research evidence, patient considerations, the healthcare environment, and clinical judgement.

INFORMED PRACTICE Critical thinking underpins evidence-informed practice. As an LPN you incorporate critical thinking into all aspects of the nursing process from assessment to evaluation.⁹

Part of critical thinking is recognizing when and what aspects of evidence-informed practice are applicable to a specific situation.

Critical Thinking

Using critical thinking involves evaluating all available information to provide patients with the highest quality of evidence supported care.

Critical thinking is an active and purposeful problem-solving process that involves identifying and prioritizing risks and problems, clarifying and challenging assumptions, using an organized approach to assessment, checking for accuracy and reliability of information, weighing evidence, recognizing inconsistencies, evaluating conclusions and adapting thinking.¹⁰

As an LPN you incorporate critical thinking throughout all parts of the nursing process (i.e. performing an assessment, formulating a nursing diagnosis, planning, implementing, and evaluating).

Critical thinking is a part of the entry level competencies for LPN practice however, these skills can always be further developed.

By further developing your critical thinking ability you can improve the quality of care you provide to patients. Below are some strategies to help you constantly improve critical thinking.

Ways to continuously develop critical thinking in your practice:

Assess information

- Think about the source of the information
- Don't take information at face value - question it and evaluate the validity for yourself

Be open-minded and value diversity

- If you come across information that is different than what your current knowledge or beliefs are, don't discount it immediately, but evaluate the information before making judgments

Seek out new information

- Be curious and inquisitive
- Look for new information to help you strengthen your evidence-informed



practice to support current actions or shift actions to align with the evidence

Reflect on your own knowledge

- Stop and think about why you believe what you believe
- Evaluate your own nursing practice to see what your nursing decisions are based on
- Determine if you need better or more evidence to make nursing choices that better support patient care

Research Evidence

Evidence can come from many different sources; however, research evidence is a key component of evidence-informed practice.

Research studies published in peer-reviewed journals are considered strong evidence. Peer review of scientific research helps ensure that the research study is reliable, valid, and adds to the body of evidence on the topic.¹¹

A systematic review is a type of peer reviewed article, where evidence is evaluated and synthesized systematically to present a full picture of best evidence on a specific topic. These reviews are designed to be an exhaustive look at all evidence currently available.

In contrast, grey literature is not peer reviewed. Grey literature can be published by organizations, posted on online platforms by individual users, or be unpublished personal notes or memos.¹² Grey literature is typically considered as weaker evidence compared to a systematic review or other peer reviewed journal articles.

Levels of Evidence

Often, good evidence can be easily distinguishable by the source of information and where the information sits in the hierarchy of evidence. For example, figure 2 below ranks and characterizes medical evidence in academic articles by research design.

When medical research is conducted thoroughly, good evidence is found at the top of the pyramid. However, when research at a higher level is conducted poorly or includes many biases, evidence found at a lower level may be better and stronger.

Research evidence is only as good as the research study design. Additionally, medical evidence on a particular topic is only as strong as the amount of information that is available.

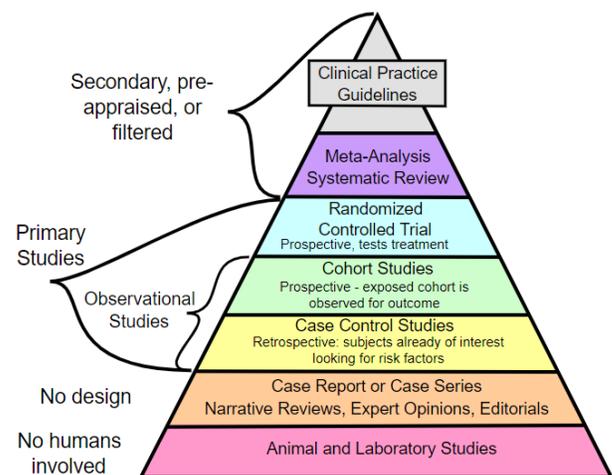


Figure 2. Levels of Evidence¹³

Information Literacy

Information literacy is the ability to find and evaluate information.

You need to evaluate evidence and to ask the right questions to ensure that the information you receive is relevant to your context.

You can foster information literacy skills by practicing on-line information searches, accessing and assessing different sources of evidence, and collaborating with colleagues to work on developing your skills together.

Evaluating Evidence

Part of your role as an LPN is to evaluate evidence to discern what is appropriate or inappropriate for your practice.



[How to Read a Paper](#) by Trisha Greenhalgh can help you gain the skills to appropriately evaluate any information you encounter in academic journals.

Although information from research studies higher in figure 2 is considered stronger and more rigorous, it is equally important to consider how studies were conducted to determine the trustworthiness of the evidence and applicability.

Outside of academic journals other sources of knowledge exist. As noted above sources of knowledge include colleagues, traditional ways of knowing, traditional media, social media, employer guidelines, policies and procedures, and academic journals. Part of your job as an LPN is to find ways to evaluate knowledge, and its source, for its applicability to your practice.

It is important to assess knowledge and evidence individually and in the larger context. Pieces of information should be compared to each other and how they might be applied in the individual circumstance of the care you are providing.

All information comes with some sort of bias. Your job as an LPN is to evaluate the information for validity, even with the bias. The Centre for Evidence Based Medicine and Oxford University collaborated to create the Catalogue of Bias (<https://catalogofbias.org/>), a website that explains different types of biases found in research and what kinds of biases people should be aware of when evaluating evidence.

Being aware of different biases can help you determine what is good evidence.

Patient Considerations

While evidence can be evaluated objectively, when providing care, it is important to consider the individual needs, concerns, and preferences of the patient. Quality patient-centred care is individualized for each patient.

Patient-centred care helps ensure that decisions are made with the best interest of the patient in mind

(e.g. goals of care). Decisions are made collaboratively with the patient when possible. This allows for shared understanding of patient considerations and nursing practice resulting in better evidence-informed practice.

Standards of Practice, the Code of Ethics, and CLPNA policy documents all highlight the importance of providing patient-centred care. Evidence-informed practice highlights the need to consider patient needs, concerns, and preferences when making nursing decisions.

Integrating patient needs, concerns, and preferences into the decision-making process may allow for greater satisfaction of care, improved health, and a stronger therapeutic relationship.¹⁴

Examples of patient characteristics to consider include:

- Age
- Health Status
- Previous healthcare system interactions
- Gender
- Cultural background

Consideration of individual patient experience is an integral part of nursing. For example, patients may request traditional ways of healing from their culture be integrated into their care plan. When possible, consider patient experience in the decision-making process for the best interests of the patient.

For more information on how to better communicate with and understand the individual needs of patients please see the Practice Guideline on *Cultural Competence and Inclusive Practice*.

Healthcare Environment

The healthcare environment includes the care setting, staffing and equipment resources, other characteristics of the physical setting where healthcare services are provided.

When providing evidence-informed practice you should be aware of how the healthcare environment



may shape the possible decisions you can make for a patient. For example, different equipment may be available on different units or across the province or the staff make up can vary between facilities.

The healthcare environment includes the physical location of a hospital or facility, the layout and organization of the building, and physical resources like equipment. Additionally, the healthcare environment goes beyond the physical environment and includes resources such as organizational structure and culture, staff mix or availability, and access to different stakeholders.

Often one person cannot change the healthcare environment alone. However, you can consider how the healthcare environment shapes the applicability and practicality of care options based on research evidence, patient considerations, and clinical judgement.

Clinical Judgement

Through practical nursing education and experience you continuously develop clinical expertise in your area of practice. Clinical expertise is the intersection of clinical assessment, setting, and circumstances, patient preferences and actions, research evidence, and healthcare resources.¹⁵

LPNs use clinical expertise and judgement to make decisions in their practice based on multiple factors - including but not limited to what resources they have available, previous experiences or knowledge, advice from other healthcare professionals, and patient values.

You can accumulate and evaluate sources of knowledge and evidence to help make practice decisions.

All sources of knowledge should be evaluated for rigour, reliability, and existing biases. For example, your colleagues have experience and knowledge that may be incredibly insightful and beneficial to patient care but that might be biased to sticking with tradition and not be consistent with the best available

evidence found in academic journals. This does not mean that you should ignore the experience and knowledge of your colleagues, but you should evaluate the information using critical thinking skills from your training (and those listed above) to evaluate how useful that information is in the context of your situation.

As with other sources, information on social media platforms should be evaluated for reliability and potential biases. Additionally, if you are sharing information online using social media please refer to the *Social Media: e-Professionalism for Nurses* for guidance.

Ethical Practice

A key part of making a clinical judgement is assessing and evaluating the ethics of the situation.

The *Standards of Practice for Licensed Practical Nurses in Canada* indicates LPN professional responsibility and accountability to adhere to expectations of ethical practice by following the *Code of Ethics* for the profession. The *Code of Ethics* outlines the ethical values and responsibilities that LPNs must uphold and promote to fulfill their ethical commitment to society, reflected in their clinical judgment and decision making.

Different components of evidence-informed practice may suggest different or conflicting actions. When there is conflicting information, your responsibility is to use your critical thinking skills to act ethically in the best interests of the patient.

Assessing the ethics of any individual nursing action involves considering all information to make the best decision for the patient. In some cases, what the patient wants or needs may conflict with what evidence states is best practice.

When you encounter a conflict between research evidence, patient needs, or your clinical experience you need to evaluate all of this information to see which course of action best supports the patient.¹⁶



Ethical practice as part of evidenced-informed practice is not solely about following best research evidence, but also recognizing the complexities between research evidence, patient considerations, the healthcare environment, clinical judgement, and other factors that might influence decision-making.

Integration of Evidence into Practice

When providing nursing care to a patient you should consider all four components of evidence-informed practice discussed above while considering the broader context.

In theory, research evidence, patient considerations, the healthcare environment, and clinical judgement should have equal weight. However, in practice, some circumstances may require you to weigh one component more heavily than another. Use your critical thinking skills to evaluate the components of evidence-informed practice to determine your nursing decisions.

You might start an interaction with a patient and have a good idea of what actions you should take. However, you should remain open minded throughout your interactions with patients to ensure you provide patient-centred care.

When interacting with patients, you might be asked about certain interventions and not know the answer. This is normal. The strategies in this document can help you make the appropriate care decision.

The Five As of Evidence-Informed Practice¹⁷

Ask

- Identify the problem or situation
- Explore options to manage the problem or situation

Acquire

- Look at what sources are available to help you answer the problem or situation

Appraise

- Evaluate the sources of evidence for reliability, biases, and applicability to the situation

Apply

- Determine what actions should be taken based on your evaluation of the evidence
- Take the evidence-informed actions

Assess

- Evaluating the impact of the actions taken and whether not the desired outcome is achieved

CONCLUSION Using evidence-informed practice in your nursing process can help ensure that you provide the best quality care for your patients. As an LPN you can use critical thinking to evaluate research evidence, patient considerations, the healthcare environment, and your clinical judgment to provide evidence-informed care.

This document outlines evidence-informed practice and provides strategies for reviewing and integrating evidence into your practice. Additionally, the document emphasizes the importance of ethical care using critical thinking skills and being aware of patient needs, concerns, and preferences.

If after reading this document you have questions about evidence-informed practice, please contact the CLPNA's Professional Practice Team using [Ask CLPNA](#), or by phone at 780-484- 8886 or 1-800-661-5877 (toll free in Alberta).



OTHER RESOURCES

CLPNA Webinars on Evidence-Informed Practice:

<https://www.youtube.com/watch?v=PL02oXyjtBo>

<https://www.youtube.com/watch?v=kQwIUfa1IOY>

<https://www.youtube.com/watch?v=UG7vvO4bpGM>

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