

Licensed Practical Nurses

AI touches charting, scheduling and monitoring alerts, but bedside care, medication rounds and patient observation remain hands-on work.

EXPOSURE	WINDOW	ADOPTION TODAY	READING
9 Low exposure	7–15 yrs until change lands	Low-Medium	AI assists; the work stays human-led. Exposure is the share of today's work AI can plausibly take on within the window.

§ 01WHAT IS HAPPENING

What is happening to licensed practical nurses

Impact

For licensed practical and vocational nurses, AI shows up mainly at the edges of the shift: electronic health records that suggest documentation, early-warning systems that flag deteriorating patients, smart dispensing cabinets and rota tools that build schedules. The core of the day, which is giving medications, dressing wounds, taking vital signs, helping patients move and noticing that something is not right, is physical and relational and is not what generative AI does. The practical change is slightly less time at the computer and more alerts to respond to.

Risk

Low measured exposure; documentation thins out while hands-on care, observation and patient contact stay with the nurse.

The score is low because the measured generative-AI exposure is low: the occupation's task list is dominated by direct physical care, and official measures place it in the low exposure tier with almost no observed usage. The tasks that will change are charting, shift handover summaries, scheduling and some routine patient messaging. Everything that requires hands on a patient, clinical observation in the room and judgement about when to escalate stays with the nurse. The relevant physical-automation channel is robots for supply delivery and ambient room sensors for monitoring, which are being trialled in some hospitals but are not displacing bedside staff. Over the 7-15 year window, the role is more likely to be reshaped by workforce shortages and shifting scope of practice than by AI.

Sector readiness

Limited Deployment Beyond Records and Monitoring

Hospitals and long-term care providers have deployed AI mostly inside the health record and in monitoring systems, with ambient documentation still aimed primarily at physicians and registered nurses. Nursing homes and home-health agencies, where many practical nurses work, are among the slowest adopters because of thin margins and older IT. Virtual nursing programmes and delivery robots exist at well-funded systems but are not yet typical.

§ 02 POSITION

Where you stand

- i Position yourself as the clinician whose direct observation confirms or overrides what the monitoring system says.
- ii Build towards registered nurse qualification if you want more scope, since the growth is in roles that combine hands-on care with wider clinical responsibility.
- iii Become the person in your unit who knows the record system well enough to help colleagues use its AI features safely.

§ 03 ACTIONS

6 POINTS

What this means for you

Concrete changes to how the work gets done, in the order you are likely to meet them.

- 01 **Trust your eyes over the alert.** Early-warning systems miss things and over-fire. Your assessment in the room is the check on the machine, and documenting it clearly protects both you and the patient.
- 02 **Use the documentation help.** Where your record system offers suggested text or summaries, use it to cut your time at the computer, then correct it carefully. The time saved belongs with patients.
- 03 **Learn the monitoring tools properly.** Know how your unit's sensors and alerts are configured and what they cannot detect. That knowledge makes you more useful than someone who just responds.
- 04 **Keep hands-on skills sharp.** Wound care, catheterisation, injections and mobility support are the core of the job and are not being automated. Competence here is your security.
- 05 **Consider the next qualification.** Scope of practice is shifting, and registered nurse roles are growing. If you want more responsibility, the ladder is still there.
- 06 **Pay attention to long-term care technology.** Nursing homes are starting to adopt fall-prediction sensors and medication systems. Being comfortable with them will matter for the next job.

What is pushing this change

- 01

Low generative-AI task overlap. The occupation's tasks are overwhelmingly physical and in-person, so both the applicability measure and observed usage are close to zero.
- 02

Health record documentation features. Suggested charting text, handover summaries and message drafting are the main places AI appears in the practical nurse's day.
- 03

Patient monitoring and early-warning systems. Algorithms that flag deterioration or fall risk change what nurses respond to without changing who provides the care.
- 04

Automated dispensing and supply logistics. Smart cabinets and delivery robots reduce fetching and counting, a modest time saving rather than a role change.
- 05

Workforce shortages. Persistent staffing gaps mean employers are deploying technology to stretch nurses, not replace them.
- 06

Slow adoption in long-term care. Many practical nurses work in settings with limited budgets and legacy systems, which keeps actual deployment low.

Impact by sector

The headline figure is an average. Where you work changes the picture.

Hospitals	The most technology-rich setting, with monitoring alerts and record features most visible, but also the setting with the most complex direct care.
Nursing homes and long-term care	Low AI deployment today; fall-prediction sensors and medication management systems are the likely first arrivals.
Home health	Mobile charting with AI help and remote monitoring are spreading, but the visit itself is entirely hands-on.
Physician offices and clinics	More administrative exposure here, as intake, triage messaging and documentation are being automated in outpatient settings.

Skills to build

The skills that keep the human part of this work valuable as the routine part is automated.

- 01

Clinical observation and assessment. Noticing subtle changes in a patient is the skill sensors cannot replace; keep learning it through experience and training.
- 02

Hands-on procedural competence. Medication administration, wound care and mobility support remain the core of the role and the least automatable.
- 03

Working with monitoring systems. Understand what your unit's alerts measure and miss so you can respond proportionately and document your judgement.
- 04

Health record fluency. Efficient, accurate use of the record and its AI features frees time for patients and reduces errors.
- 05

Communication and reassurance. Explaining care to patients and families is a human task that grows in importance as technology enters the room.
- 06

Career progression planning. Bridging programmes to registered nurse status open roles with more scope and stronger growth.

Tools in use

KINDS OF TOOL WORTH KNOWING

- 01

Hospital delivery robots. Robots such as Moxi fetch supplies and medications, a physical-automation channel that saves steps rather than replacing care.
- 02

AI staffing and rota tools. Scheduling software that predicts demand and builds rotas is changing how shifts are allocated.

NAMED TOOLS ALREADY IN USE

Epic	VISIT
Dominant hospital health record with built-in deterioration scoring and AI-assisted documentation features.	
Oracle Health	VISIT
Health record platform used widely in hospitals and long-term care, adding AI charting assistance.	
Omnicell	VISIT
Automated medication dispensing cabinets that use software to manage counts, access and restocking on the ward.	

care.ai

VISIT

Ambient room sensors and virtual nursing platform used in some hospitals to monitor patients and support bedside staff.

§ 08 EXAMPLES

3 EXAMPLES

In practice

Ways people in this role are already using AI, and what they get from it.

Responding to deterioration alerts

EXAMPLE 1

HOW

A practical nurse on a medical ward receives an early-warning alert from the health record, assesses the patient in person and documents findings before escalating to the registered nurse.

GAIN

Problems are caught earlier while the clinical judgement stays with the nurse at the bedside.

Faster charting

EXAMPLE 2

HOW

At the end of a shift, a nurse uses the record's suggested documentation to complete routine entries, then edits for accuracy.

GAIN

Less overtime spent on paperwork and more time available during the shift.

Medication rounds with smart cabinets

EXAMPLE 3

HOW

A long-term care nurse draws medications from an automated cabinet that tracks counts and flags discrepancies.

GAIN

Fewer counting errors and a clearer audit trail.

§ 09 CONTEXT

How this role compares

Three neighbouring roles chosen to show the direction of travel.

Medical Transcriptionists

MORE EXPOSED

AI IMPACT

Speech recognition and ambient documentation are replacing the core task outright.

WORK MOVES TO

Editing and quality assurance of AI-generated clinical text.

Registered Nurses

DIFFERENT SKILLS, GROWING

AI IMPACT

AI supports documentation and monitoring, but demand for registered nurses continues to grow with wider clinical scope.

WORK MOVES TO

Clinical assessment, care planning and coordination.

Healthcare Assistants

COMPLEMENTARY, LESS EXPOSED

AI IMPACT

Almost entirely hands-on care with minimal generative-AI exposure.

WORK MOVES TO

Personal care, mobility support and patient comfort.

Closing judgement

If you are a practical nurse, the honest reading of the evidence is that your work is among the least exposed to generative AI of any role we cover, because it happens with your hands at the bedside. That does not mean nothing changes: expect more alerts, more sensors and less typing. The nurses who do best will be those who learn to work with monitoring systems without being ruled by them, and who keep building the clinical observation skills that no sensor replaces.

Evidence and revisions

What the exposure figure rests on, what changed when it was last revised, and the published work cited for this role.

SCORE

9

WINDOW

7-15 years (unchanged)

The 5 October 2026 review held the score.

Exposure Index v2. Inputs: task applicability 7/100 (Microsoft AI applicability score 0.03 for Licensed practical and licensed vocational nurses); observed usage 0/100 (Anthropic observed exposure 0.00); official exposure tier 10/100 (BLS: low); labour-market trajectory not yet mapped for this occupation, so its weight was spread across the other inputs; published adoption rating 25/100 (low-medium adoption). Weighted base 9.0. Final score 9. New report: the window of 7-15 years is set from the score band.

HOW THE FIGURE IS BUILT (EXPOSURE INDEX V2)

Task applicability — Microsoft Research, AI applicability score	7 × 39%	2.6
Observed usage — Anthropic Economic Index, observed exposure	0 × 22%	0.0
Official exposure tier — US BLS AI-exposure category	10 × 22%	2.2
Labour-market trajectory — US BLS projected employment change 2025–35	not measured	—
Published adoption rating — This report’s adoption level	25 × 17%	4.2
Weighted base		9.0
Exposure score		9

MEASURES BEHIND THE SCORE

US Bureau of Labor Statistics · *Employment Projections 2025–35 and AI Exposure Categories* (27 August 2026)

AI-exposure tier: Low. Projected employment change not yet mapped for this occupation. Matched to Licensed practical and licensed vocational nurses.

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Microsoft Research · *Working with AI: Measuring the Applicability of Generative AI to Occupations* (10 July 2025)

AI applicability score 0.03 for SOC 29-2061; scaled to 7/100 as the task-applicability input.

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Anthropic · *Anthropic Economic Index report: Cadences* (26 June 2026)

Observed exposure 0.00 for SOC 29-2061; scaled to 0/100 as the observed-usage input.

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UK Department for Science, Innovation and Technology · *Assessment of AI capabilities and the impact on the UK labour market* (28 January 2026)

UK context: around 70% of UK workers are in occupations with tasks AI could perform or enhance, above the US average; a one-standard-deviation rise in exposure was associated with a 3.9% fall in UK job postings.

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<https://www.careerguard.ai/sources>

§ 12 APPENDIX

Method and sources

Each report was written from a large body of published research. The exposure score itself is computed, not written: it is the CareerGuard Exposure Index, a weighted average of occupation-level measures from the US Bureau of Labor Statistics (AI-exposure classification and 2025–35 projections), Microsoft Research (AI applicability scores) and Anthropic (observed exposure), together with the adoption rating published on the report. The organisations and publications below are the standing literature behind the narrative sections. Every source, with dates, licences and archived copies where we are permitted to hold them, is catalogued in the research library.

Exposure Index v2 (October 2026). Each input is scaled to 0–100 and weighted: task applicability 35% (Microsoft AI applicability score ÷ 0.5), observed usage 20% (Anthropic observed exposure ÷ 0.75), official exposure tier 20% (BLS very high = 100, high = 70, moderate = 40, low = 10), labour-market trajectory 10% ($50 - 2.5 \times \text{projected \% employment change}$), published adoption rating 15% (very high = 85, high = 70, medium-high = 55, medium = 40, low-medium = 25, low = 10). Inputs not measured for an occupation are dropped and the remaining weights renormalised. An editorial adjustment of at most ± 12 points is allowed only for automation channels the measures cannot see (robotics, self-service, machine vision, medical imaging, RPA/OCR, generative video) and is always logged with its reason. Scores are whole numbers, not rounded to five. The change window shifts one notch (a year at each end) per ten points of movement.

World Economic Forum

The Future of Jobs Report series — Employer survey of expected job growth and decline, skill shifts and technology adoption (2020, 2023 and 2025 editions); *Artificial Intelligence and the Future of Entry-Level Work* (2026).

AI governance and transformation reports — Frameworks on ethical AI, talent strategy and industry transformation.

McKinsey Global Institute

AI, Automation and the Future of Work series — Research quantifying automation potential by task, sector and demographic, from "Jobs Lost, Jobs Gained" to "Agents, robots, and us" (2025).

Industry-specific reports — Financial services, healthcare, manufacturing and others.

PwC

Global AI Jobs Barometer — Annual analysis of job postings and productivity by AI exposure (2024–2026 editions).

Upskilling Hopes and Fears survey — Employee perceptions and readiness.

Microsoft Research and Anthropic

Working with AI (2025); *Anthropic Economic Index* (2025–2026) — Occupation-level usage data from Copilot and Claude conversations, the two observed-usage measures behind the 2026 revision.

Stanford Digital Economy Lab and Stanford HAI

Canaries in the Coal Mine? (2025–2026); *AI Index Report* (annual) — Payroll evidence on early-career employment in exposed occupations; annual measurement of AI capability, investment and adoption.

Deloitte

Human Capital Trends series — Workforce, talent and HR technology trends.

Tech Trends series — Emerging technologies and their business implications.

Accenture

Technology Vision series — Forward-looking analysis of emerging technology, with emphasis on AI.

Fjord Trends — Design, innovation and human experience in a digital world.

Boston Consulting Group

AI/ML insights and industry solutions — "The AI Revolution in the Workplace" and related research.

EY

AI and workforce reports — Adoption, talent strategy and ethics.

IBM Institute for Business Value

AI and automation studies — Business models, workforce evolution and leadership.

OECD

AI Policy Observatory — International data and policy on AI, labour markets and skills.

Employment Outlook — Labour-market trends including technological impact (2023–2026 editions).

International Labour Organization

Generative AI and Jobs: A Refined Global Index of Occupational Exposure (2025) — Task-level exposure gradients for every ISCO occupation; successor to the 2023 global index.

International Monetary Fund

Staff Discussion Notes on AI and work (2024, 2026) — Complementarity framing: where AI augments and where it substitutes.

UK Department for Science, Innovation and Technology

Assessment of AI capabilities and the impact on the UK labour market (2026) — UK occupational exposure and job-posting evidence.

Brookings Institution

AI and automation research — Economic and social implications, displacement and skills.

Yale Budget Lab and Goldman Sachs Research

Tracking the Impact of AI on the Labor Market; AI and the US labour market (2026) — Aggregate labour-market monitoring; macro displacement estimates.

Oxford University (Oxford Martin School)

The Future of Employment — Frey & Osborne and subsequent research on susceptibility to automation.

MIT Technology Review

AI & Work — Reporting on AI research and its implications for industries and jobs.

Gartner

Hype Cycle for Artificial Intelligence — Maturity and adoption of AI technologies.

Future of Work reports — Workplace models and talent strategy.

U.S. Bureau of Labor Statistics

Employment Projections 2025–35; AI Exposure Categories; Occupational Outlook Handbook — Ten-year employment projections and, from the 2025 cycle, an AI-exposure tier for every detailed occupation.

Indeed Hiring Lab

AI at Work Report (2025) and posting-market updates — Skill-level transformation estimates and job-posting trends by occupation.

II CORE AI AND MACHINE-LEARNING RESEARCH

OpenAI

Research papers, blog and API documentation — Large language models, generative AI, safety and societal impact.

Google DeepMind

Research papers and blog — Reinforcement learning, AI for science, AGI and ethics.

Meta AI

Research papers and blog — Large language models, computer vision, AI for social good.

Hugging Face

Transformers library and model hub — Open-source state-of-the-art NLP models.

TensorFlow and PyTorch

Documentation and community forums — Core frameworks illustrating practical capability.

arXiv

cs.AI, cs.LG, cs.CV, cs.CL — Pre-print research.

NeurIPS and ICML

Conference proceedings — Top-tier academic research.

ACM and IEEE

Journals and proceedings — ACM Computing Surveys; IEEE Transactions on AI.

Kaggle

Datasets and competition solutions — Applied machine learning on real-world problems.

The Alan Turing Institute

Research and reports — Responsible and applied AI.

III ETHICAL AND RESPONSIBLE AI DEPLOYMENT

NIST

AI Risk Management Framework — Voluntary framework for managing AI risk.

European Commission

AI Act — Risk-tiered legal framework for AI.

Ethics Guidelines for Trustworthy AI — Principles for responsible development.

Partnership on AI

Research and best practice — Responsible AI development.

AI Now Institute

Annual reports — Social implications: power, inequality, rights.

ACM FAccT

Proceedings — Fairness, accountability and transparency.

Data & Society

Publications — Social implications of data-centric technology.

WIPO

Conversation on IP and AI — Intellectual-property implications of AI.

IEEE Global Initiative on Ethics of AI/IS

Ethically Aligned Design — Recommendations for ethical AI design.

Center for AI and Digital Policy

Policy briefs — Accountable AI policy.