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Why pharmacy technicians belong at the front of every ED admission

BY SAMMU DHALIWALL

Walk into any Canadian emergency department on a Tuesday evening, and the scene is the same. Nurses move between bays, balancing triage decisions with charting, IV starts, family questions, and the steady churn of admission paperwork.

Somewhere in that workflow, a nurse is being asked to capture the patient's complete medication history. What do they take, what are the doses of each medication and how often? Is the current label accurate for how they take it, and do they take any herbal or over-the-counter medications?

The result is a document called the Best Possible Medication History (BPMH) and becomes the foundation on which every inpatient medication decision rests for the next several days.

The problem is that the BPMH is often the first thing to compress when time is short.

For more than a decade, Accreditation Canada has identified medication reconciliation as a Required Organizational Practice. Despite this, many hospitals, especially small, rural, and community-based sites, continue to struggle to consistently meet that standard.

The reason is not effort or intent. It is structural. Pharmacy departments in these facilities are rarely staffed in evenings or on weekends and recruiting registered pharmacy technicians into rural and remote communities across Canada has become harder, not easier, over the past several years. The default position is that the BPMH falls to the admitting nurse, who is already responsible for everything else happening in that bay.

North West Telepharmacy Solutions (NTS) set out to understand what that compression costs, not in the abstract, but in measured terms.

Between February and June 2024, the NTS team conducted a study comparing nurse-created BPMHs to BPMHs derived by registered pharmacy technicians (RPhTs) working remotely, using an electronic interview tool. The study examined 154 patient admissions to the emergency department of a 30-bed rural hospital.

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The results were eye opening. Across those 154 admissions, NTS pharmacy technicians identified 352 deviations between the nurse-collected medication history and the BPMH the technicians produced through a structured remote interview.

Fifty percent of the nurse-created BPMHs contained three or more deviations. Forty-one percent of those deviations had the potential to cause moderate to severe patient discomfort or clinical deterioration.

The majority were drug omissions, meaning medications not listed that the patient was taking. Partial matches (wrong dose, wrong frequency, wrong formulation) and drug commissions (medication listed the patient was not taking) were also common.

These are not minor data hygiene issues. A wrong dose carried forward into admission orders becomes a wrong dose administered on the unit. A drug commission means a patient may receive a medication they discontinued months ago.

An omission means an actively prescribed antihypertensive, anticoagulant, or insulin is missing from the chart at the moment care decisions are being made. Every one of those scenarios is a downstream patient safety event waiting to happen, and every one of them traces back to the same root cause. The BPMH was incomplete when admission orders were written.

"When we built our remote BPMH program, we were not trying to replace anyone. We were trying to give nurses back the time they were never supposed to lose in the first place. Frontline nurses in the ER are skilled at many of the things they do, but finding 15-25 minutes to do a BPMH for every hospital admission is not a good use of this resource," says Kevin McDonald, director and founder of North West Telepharmacy Solutions.

The case for placing registered pharmacy technicians at the front of every hospital admission is not new. RPhTs are explicitly trained and licensed to collect, verify, and document medication histories.

They know how to read a community pharmacy printout, interpret a provincial

drug profile, recognize when a brand and generic are the same drug, and probe for the medications patients routinely forget to mention.

These include over-the-counter products, as needed medications, herbal supplements and sample medications from a physician.

They also cover recently completed therapies such as antibiotics or steroid tapers.

A pharmacy technician approaches the medication history with a clinical eye that a generalist clinician simply does not have the bandwidth to develop while simultaneously managing acute care.

The barrier has always been access. There is not enough pharmacy technicians physically located in rural hospitals, in northern hospitals, in small community hospitals, or in any hospital after hours. Not to mention, with some small hospitals that can have anywhere from zero to five admissions on any given evening, having a RPhT available every night of the year for a BPMH is not reasonable. That is the gap remote service closes.

North West Telepharmacy Solutions operates a national team of more than 250 pharmacists and registered pharmacy technicians delivering virtual clinical pharmacy services to over 100 hospital clients across Canada.

The NTS remote BPMH program connects technicians with newly admitted patients by phone or video, typically within an hour of the request. The technician conducts a structured interview using an evidence-based electronic tool built on the ISMP Canada algorithm, references the patient's community pharmacy records and provincial drug profile where available, and produces a documented BPMH that flows into the hospital's information system for the admitting team to act on.

"The patients we interview consistently tell us they appreciate the time and attention. They are not being rushed, and they feel heard. From the hospital's side, nurses tell us they cannot believe how much of their evening just came back to them. That is the program working as intended on both ends," said Rebecca Lynch, regional manager, pharmacy technicians at North West Telepharmacy Solutions.

CIHI reports that readmissions cost more than $2.3 billion annually, and medication-related issues are prominent.

The implications for senior hospital leadership extend well beyond pharmacy. Every BPMH error that reaches the inpatient chart has the potential to extend length of stay, contribute to a preventable adverse drug event, trigger a readmission, or generate a quality reporting incident.

The Canadian Institute for Health Information has reported that hospital readmissions cost the Canadian system more than $2.3 billion annually, and medication-related issues are among the most common contributing factors.

Eighteen percent of patients experience a medication-related error after discharge from hospital, and many of those errors are seeded at admission, when the medication list was wrong from the start.

Investing in a robust BPMH process at the point of admission is, in operational terms, one of the highest-leverage decisions a hospital can make.

It improves Accreditation Canada compliance against an ROP that has been in place for more than a decade. It reduces ER nursing burden. It lowers the rate of inpatient medication discrepancies. It supports more accurate discharge medication reconciliation. And it contributes directly to the readmission reduction agenda that every health authority in the country is now measured against.

Looking ahead, NTS continues to invest in the program. Future iterations will include patient self-completion of the medication history while waiting in the ER or in pre-operative clinics, freeing technician time for the higher-complexity interviews that benefit most from a dedicated clinical professional.

The company is also working on tighter integration with hospital electronic health records, so the BPMH document flows directly into the inpatient chart with minimal manual reconciliation by the admitting team.

The registered pharmacy technician is one of the most underutilized members of the modern hospital care team. With the right tools and delivery model, they are also among the most valuable and efficient.

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