Expanded Scope of Pharmacy Practice in New Brunswick Hospitals

Luc Jalbert, Vitalité Health Network
Douglas Doucette, Horizon Health Network

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Speakers' Disclosures

Luc Jalbert

- Nothing to declare

Douglas Doucette

- Nothing to declare

Objectives

In this session, we will:

- Summarize key “pillars of evidence” for benefit of pharmacist services to patient outcomes;
- Illustrate examples of how Pharmacy Services in NB Regional Health Authorities are working in or towards expanded scope of practice (ESoP), and
- Describe next steps to lead NB hospital pharmacists to work at full scope of practice (SoP).

Old and Current Practices

- In place well before the Pharmacy Act was amended
  - Disparate
  - Not same level of implication

- Examples
  - Aminoglycosides dosing (lab testing/prescriptions)
  - Drug doses/interval adjustments (renal impairment)
  - Clinical pharmacist /physician « collaboration »

« New » Pharmacy Act

- 2008
  - Expanded Scope of Practice (ESoP)

- Introduced pharmacist prescribing
  - Medications
  - Clinical tests
- Collaborative practice agreements

But… There was a dark cloud

Regulations to NB RHA Act

- Did not provide the authority where a pharmacist could be a prescriber
- After legal counseling, the RHA Act has precedence over any other private Act
- Dept of Health asked us to continue practicing like we were; but no more developing under the Pharmacy Act
  - Until legislation was changed…

Then, the bright sun

Memo from Dept of Health

- Before Christmas 2016
- No need for legislation change!

- Pharmacists may work to full scope of practice under approval by each RHA

Pillars of Evidence:
Benefit of Pharmacist Services

- ✓ Bond et al.
- ✓ Kaboli et al.
- ✓ Makowsky et al.
- ✓ Gillespie et al.
- ✓ Chisholm-Burns et al.
- ✓ Cdn Consensus cpKPIs

Summary Evidence of Benefit of Clinical Pharmacy Services

Kaboli et al., 2006 – Systematic Review

1. Attendance on patient care rounds
2. Patient interviews & assessments
3. Medication reconciliation
4. Discharge "counselling" (patient education on medications)
5. Post-discharge follow-up

Bond & Raehl, 2007 - Observational

1. Admission drug histories
2. Medical rounds participation
3. CPR team participation

Makowsky et al., 2010 – RCT

Overall quality score → 3- and 6-month all-cause readmission (hospital or ED visit after index hospital admission)

Gillespie et al., 2010 – RCT

Integrated Intervention pharmaceutical care

1. Post-discharge hospital visits (ED + readmissions)
2. Emergency department visits
3. Drug-related readmissions

Chisholm-Burns et al. , 2011 – SR/MA

1. HbA1c , LDL-c, BP
2. Adverse drug events

Consensus KPIs in the Patient Journey

PATIENT ADMISSION

- Medication reconciliation at admission

PATIENT STAY

- Pharmaceutical care plan
- Resolved drug therapy problems
- Interprofessional patient care rounds
- Patient education during stay

PATIENT DISCHARGE

- Patient education at discharge
- Medication reconciliation at discharge

COMPREHENSIVE DIRECT PATIENT CARE BUNDLE

NB Pharmacists' WG

- Members
  - Horizon
  - Vitalité
- Focus
  - Draft P&P

ESoP Policies & Procedures

- Two P&P drafted
  - Pharmacist Ordering, Administration and Interpretation of Clinical Tests
  - Pharmacist Prescribing of Medication

- Vitalité: Stakeholder consultation in progress
- Horizon: Stakeholder consultation completed

Clinical Tests

- Ordering, administration & interpretation of laboratory and diagnostic investigations
  - e.g. chemistry, CBC, TDM, ECG, etc.
- New P&P will replace existing delegated functions authorizing pharmacists to order lab tests in any/all RHAs

Clinical Tests (cont.)

- Principles for use of clinical tests by RPh:
  - Practice within scope of competence & experience
  - Clinical decision does not increase patient risk
  - Patient consent (implied or informed)
  - Appropriately document and communicate
  - Manage/monitor patient drug regimen
  - Transfer of care

Clinical Tests (cont.)

- RPh working within Scope of Practice:
  - On NBCP Active Direct Care Client Register;
  - Registered with RHA's medical lab provider, and
  - Assess patient and/or aware of care plan, incl provide mechanism for follow up by RPh

- Pharmacists are responsible for own competence to order or administer tests, or interpret results
  - There is no list of tests authorized for pharmacists

Clinical Tests (cont.)

<u>Collaboration & Communication</u>

- Act on results, esp when out of 'normal' range
  - Notify physician of clinically significant results

- Available & accessible to your team OR make alternate arrangements
  - <u>After-Hours:</u> **On-Call RPh** in lieu of prescribing RPh
  - Prescribing RPh may specify other arrangements, e.g. different contact person, leave chart note, etc.

Prescribing Medications

Pharmacist Prescribing P&P:

- Will replace delegated functions still in place from former RHAs' MAC or P&TC
  - e.g. renal dosing; TDM of vanco, AG, etc.

- Environmental scans of P&P in other Canadian hospitals
- Status quo *vs* new responsibilities under expanded SoP

Prescribing Medications

- Principles for prescribing medication by RPh:
  - Practice within scope of competence & experience
  - Clinical decision does not increase patient risk
  - Patient consent (implied or informed)
  - Appropriately document and communicate
  - Manage/monitor patient drug regimen
  - Transfer of care

(same as for Clinical Testing P&P)

Prescribing Medication (cont.)

- What?
  - Drugs in schedules I, II, III or U, or unscheduled
  - Excludes narcotic & controlled drugs

- Who & when to prescribe?
  - RPh on NBCP Active Direct Client Care Register;
  - To adapt a medication order, or
  - Providing patient care as part of collaborative care team (additional prescribing authority required).

Prescribing Medication (cont.)

- Continuity of Patient Care (new)
  1) Med rec at admission OR
  2) Medications taken prior to admission (not related to med rec) OR
  3) Med rec at discharge:
     - Based on RPh assessment or unintentional discrepancy, RPh may continue prescription meds, or continue, initiate or adjust non-prescription meds
  4) Reorder inpatient meds with pending stop date
     - To avoid disruption in therapy; <u>not</u> intended as routine duty

✓ Write order, document rationale & follow up, as appropriate
✓ Notify original prescriber when clinically significant

Prescribing Medication (cont.)

- Increase Suitability of Medication Orders (new)
  1) Ambiguous or unsafe orders
     - Adapt when intent is clear; otherwise, contact prescriber
  2) Drug-drug interactions
     - Hold those deemed significant if unable to contact prescriber
  3) Discontinue non-essential supplements or non-formulary vitamins

✓ Write order, document rationale & follow up, as appropriate
✓ Notify original prescriber when clinically significant

Prescribing Medication (cont.)

- Adapt dosage, formulation or regimen
  1) Modify dosage based on renal function
  2) Modify dosage based on serum levels
  3) IV to PO conversion of antimicrobials
     - Targeted agents as per clinical criteria (D&TC policy)
  4) Modify formulation
     - And/or route of admin based on patient factors

✓ Write order, document rationale & follow up, as appropriate
✓ Notify original prescriber when clinically significant

Prescribing Medication (cont.)

- <u>Collaboration & Communication</u>
  - In addition to accurate & timely writing of medication orders, RPh will ensure plan for follow up including how to be contacted, if needed
  - **<u>After-Hours:</u> On-Call RPh** will be contacted with questions in lieu of prescribing RPh unless otherwise specified, e.g. care plan in chart, personal phone #, etc.
  - Expectations of medical staff*

Prescribing Medication (cont.)

<u>Additional Prescribing Authority</u>

- Collaborative Practice Agreements
  - Allows RPh to prescribe drugs & order tests within physician team or group – seen as 'top of license'?

- Minor Ailments
  - Specific conditions & therapies as outlined in Regulations to NB Pharmacy Act (2014)

- CPA may have greater impact on care of patients in RHAs (compared to minor ailments)
- For both CPA & minor ailments, RPh must meet NBCP requirements & obtain approval of RHA pharmacy manager & clinical program

RHA's proposed ESoP P&P

- What is not included:
  - Administering injections
  - Physical assessment

ESoP Implementation

Horizon Health

- As part of Pharmacy Practice Model Project
  - Define & standardize roles & responsibilities for pharmacists, technicians, assistants
  - Set priorities for patients at highest risk & with complex medication regimens
  - Strive to increase consistency & quality of pharmacy services provided to Horizon patients
  - Tied to evidence-based clinical pharmacy indicators of quality care & patient outcomes

ESoP Implementation

- Vitalité Health Network
  - As part of our broad Clinical Strategic Plan
  - Define a standard practice model for pharmacists within all the zones
    - « Basic » clinical services
    - « Added » clinical services

ESoP Challenges

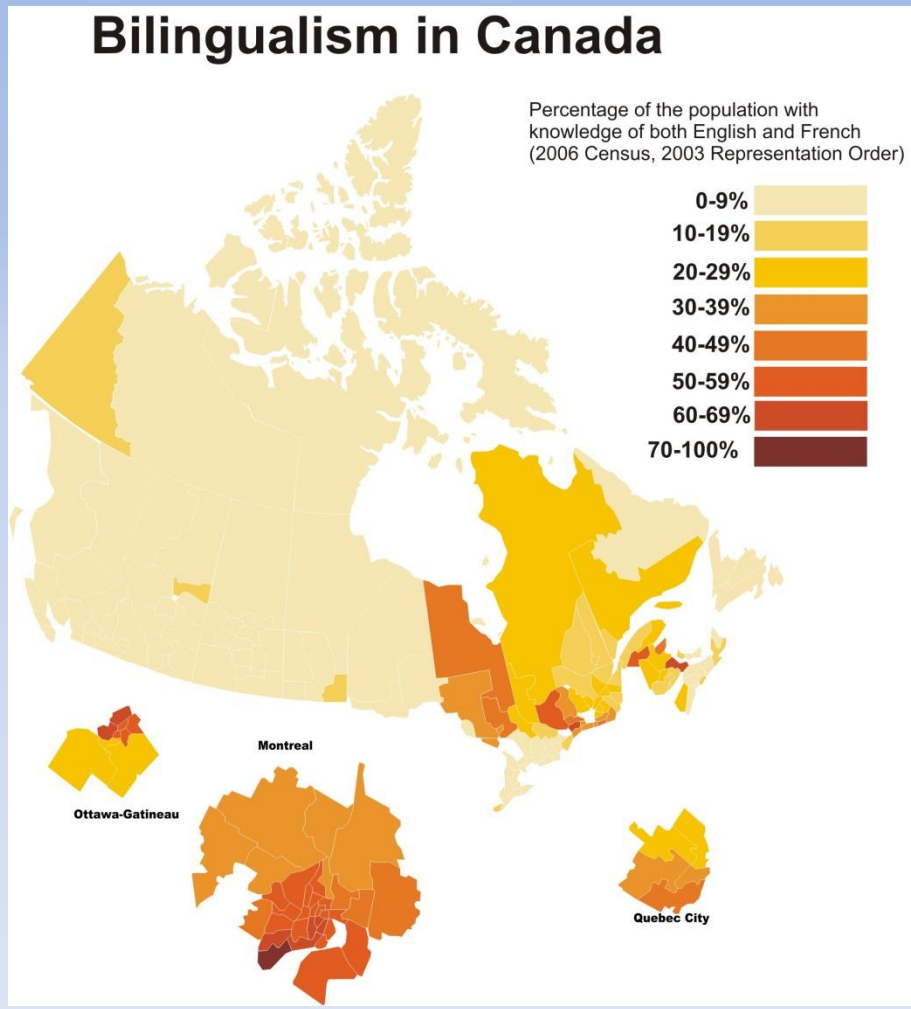
- Communication
  - With patients & family
  - Within pharmacy & care team (handoffs, documentation)
  - **Be Visible!** With care team & patients, in chart, etc.
- Collaboration & Conflict
  - Focus on patient needs to build trust – words matter
  - Trust will come easier for some than others
- Roles & Responsibilities
  - Anticipate ‘turf’ issues
  - Your ‘new’ roles may overlap with those of others

ESoP Challenges (cont.)

- Dept/Site Level
  - Priorities within dept/site
  - Small vs large sites
- Training & Coaching
  - To transition practice activities, some may need refresher training, coaching & feedback
- Staff Engagement
  - Perceptions & expectations
  - Confidence to change, embrace new practices

ESoP Challenges - Vitalité

- Lack of regional clinical coordinator…
- Many vacant positions throughout all the sites
  - Bilingual pharmacists
    - rare commodity

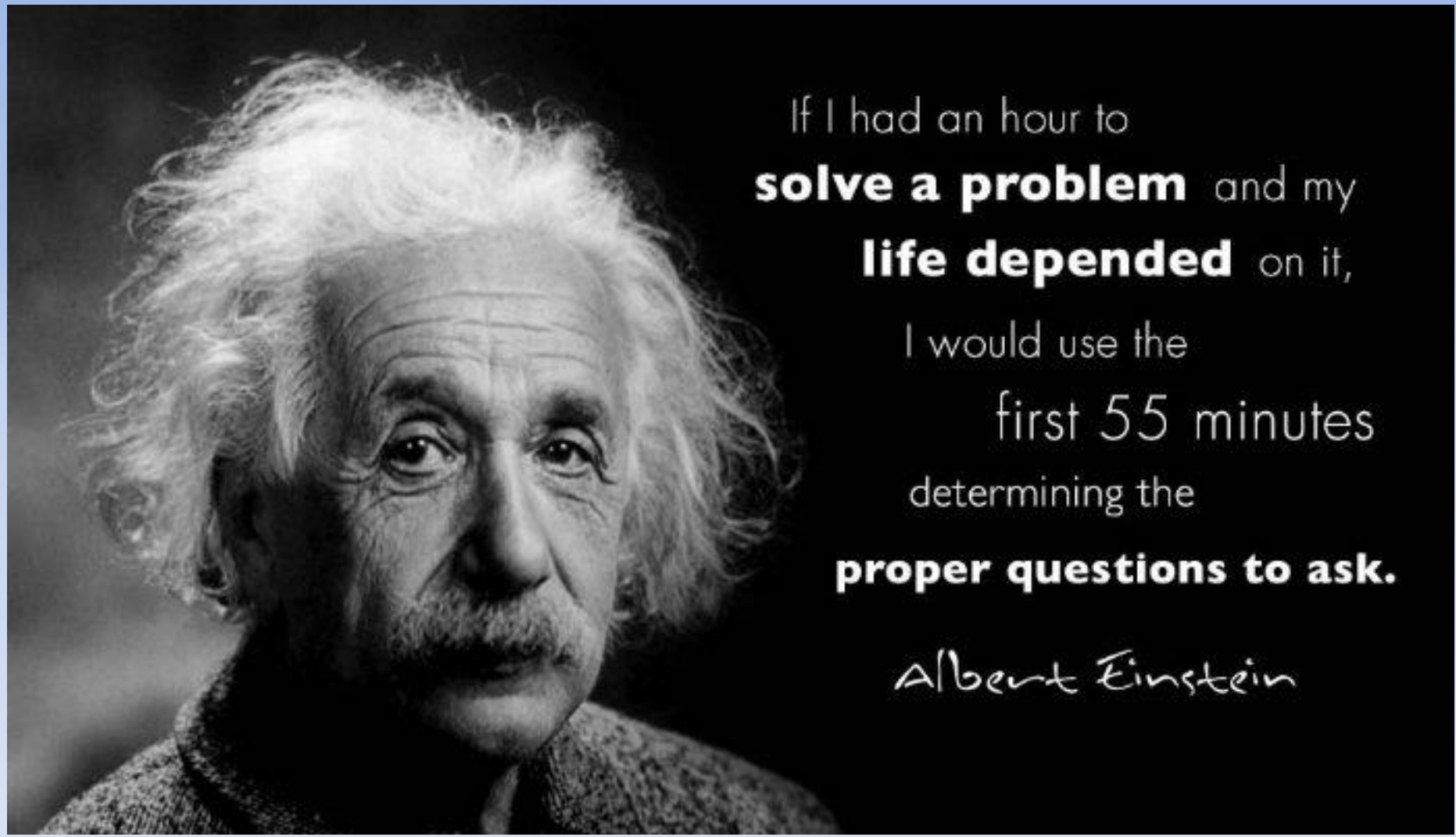


Future Activities to Implement Expanded SoP

- Provincial WG
- Communication
  - Pharmacists
- Communication
  - Stakeholders
- Identify and fill gaps
  - Pharmacy staff
  - Stakeholders (nurses, physicians, others)

Summary

- Pharmacist expanded scope of practice available with 2008 & 2014 legislation
- Hospital pharmacists are capable of taking on these roles & responsibilities for patients' drug therapy outcomes – prescribing & clinical tests are tools to this end
- Benefit to our patients should outweigh barriers to move forward in both RHAs


If I had an hour to
solve a problem and my
life depended on it,
I would use the
first 55 minutes
determining the
proper questions to ask.
Albert Einstein

Supplemental Slides

Clinical Pharmacy Services

Evidence for Clinical Services

- Bond & Raehl (2007)
  - Observational study of US hospitals' Medicare & Clinical Pharmacy Services 1998 databases:
    - Sample of 2.8 million Medicare admissions in 885 hospitals
  - Seven clinical pharmacy services were associated with reduced mortality rates (no. reduced deaths/hosp, mean±SD):
    - Drug-use evaluation: 5.37±4.29
    - Adverse drug reaction management: 23.30±19.38
    - Participation in cardiopulmonary resuscitation team: 45.84±31.92
    - In-service education: 18.38±13.96
    - **Drug-protocol (medication) management: 29.87±22.41**
    - **Participation in medical rounds: 54.65±47.24**
    - **Admission drug histories: 107.78±87.60**

Bond CA, Raehl CL. Pharmacotherapy 2007;27:481

Clinical Pharmacy Services

Evidence for Clinical Services

- Kaboli et al. (2006)
  - Systematic review 1985-2005 incl 36 studies in ICU, med, surg & drug class-specific services
  - "Kaboli 5", improved patient outcomes shown for:
    - Participating on rounds with health care team
    - Interviewing patients
    - Reconciling medications
    - Providing patient discharge education
    - Providing post-discharge follow-up

"Use of clinical pharmacists in the inpatient setting…resulted in improved quality, safety & efficiency of care."

Kaboli PJ, Hoth AB, McClimon BJ, Schnipper JL. Arch Intern Med 2006;166:955-64

Clinical Pharmacy Services

Evidence for Clinical Services

- Chisholm-Burns MA et al. (2010)
  - Systematic review & meta analyses, 298 studies
  - 48% of all studies reported AHRQ level 1 outcomes
  - Therapeutic outcomes:
    - HbA1C, mean diff -1.8% (SD 0.5%, 95%CI -2.7 to -0.9%)
    - LDLc, mean diff -6.3 mg/dL (SD 0.12 mg/dL, 95%CI -6.5 to -6.0 mg/dL); equiv to -0.163 mmol/L
    - BP, mean diff sBP -7.8 mmHg (SD 1.5 mmHg, 95%CI -9.7 to -5.8 mmHg)
  - Safety outcomes
    - 47% reduction in odds of adverse drug events (intervention vs comparison group, p=0.01)

Chisholm-Burns MA, Kim LJ, Spivey CA. Med Care 2010;48:923-33

Clinical Pharmacy Services

<u>Evidence for Clinical Services</u>

- Makowsky M et al. (2009)
  - Prospective, controlled trial in 3 hospitals x 12 mos f/u
  - Adult inpts on 2 int med & 2 fam med units w/ primary diagnosis of CAD, CAP, COPD, HF or T2DM
  - Team-care-based (I) vs usual care RPh (C)
  - Results:
    - 56.4% of TC pts vs 45.3% of UC pts received care specified by QoC indicators
    - Lower 3-mo readmission rate (36 vs 45%) favouring TC w/ NNT=11 (pts to receive intervention to prevent 1 readmission)

"…team-based care including a clinical pharmacist, improved the overall quality of medication use and reduced rates of readmission."

Mawkowsky MJ, Koshman SL, Midodzi WK, Tsuyuki RT. Care 2009;47:642-50

Clinical Pharmacy Services

Evidence for Clinical Services

- Gillespie U et al. (2009)
  - Prospective, RCT in single centre x 12 mos f/u
  - Adult inpts aged 80+ on 2 internal medicine units
  - RPh team-based (I) vs usual care (no ward RPh) (C)
  - Results favoured team-based RPh care:
    - Hosp readmission, 16% RRR (1.88 vs 2.24, 95%CI 0.72-0.99) → NNT=12 visits w/ intervention to prevent 1 future admission
    - ED visits, 47% RRR (0.35 vs 0.66, 95%CI 0.10-0.41)
    - Rx-related admission, 80% RRR (0.06 vs 0.32, 95%CI 0.10-0.41)

"If implemented on a population basis, the addition of pharmacists to health care teams would lead to major reductions in morbidity (hospitalizations) and health care costs."

Gillespie U, Alassaad A, Henrohn D, et al. Arch Intern Med 2009;169:894-99