


a place of mind
 THE UNIVERSITY OF BRITISH COLUMBIA
Faculty of Pharmaceutical Sciences

Academic Leadership in Pharmacy Practice Innovation

Peter J. Zed, BSc, BSc(Pharm), ACPR, PharmD, FCSHP
 Professor and Associate Dean, Practice Innovation
 Associate Member, Department of Emergency Medicine, Faculty of Medicine

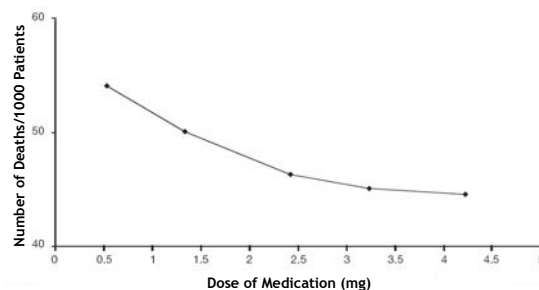
AFPC Canadian Pharmacy Education and Research Conference, June 2016

Objectives

- Discuss opportunities/challenges to patient-centred, outcome-focused, pharmacy practice innovation
- Discuss the necessary relationship and synergy between clinicians, educators and researchers to enable innovations in pharmacy practice
- Discuss a vision for pharmacy practice innovation and initiatives to support practice innovation at UBC



Two studies of a new novel medication have just been released which reveals there is an decreased mortality as the dose is increased and increasing dose is associated with fewer adverse effects.



You Would.....

- Use the higher dose
- Use the lower dose because you prefer a higher rate of mortality in your patients
- Use the lower dose because you prefer your patients have more adverse effects
- Ignore the studies and await confirmatory results from a third study

in.no.va.tion

“the creation and implementation of new processes, products, services and methods of delivery, which result in significant improvements in outcomes, efficiency, effectiveness or quality.”



Something New
 Better Than What Exists
 Economically Viable
 Widespread Appeal

“Innovation doesn’t reject the past, on the contrary, it relies heavily on the past and comes most readily to those that have mastered the domain as it exists.”

Geoff Colvin, *Talent is Overrated*



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CSHP2015
Targeting Excellence in Pharmacy Practice



CANADIAN
PHARMACISTS
ASSOCIATION

ASSOCIATION DES
PHARMACIENS
DU CANADA



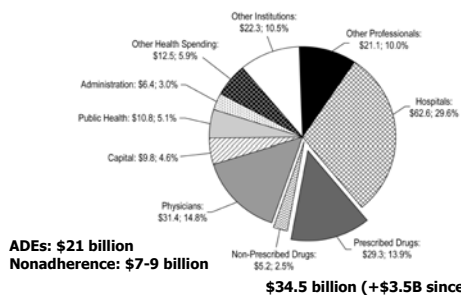
Canadian Society of Hospital Pharmacists
Société canadienne des pharmaciens d'hôpitaux

Evidence-Based Medicine/Best Practice

Patient Safety/Adverse Drug Events

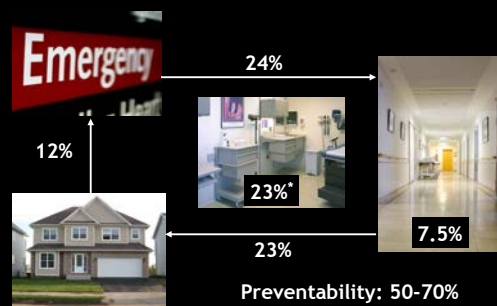
Health Care Costs in Canada

TOTAL: \$211 billion

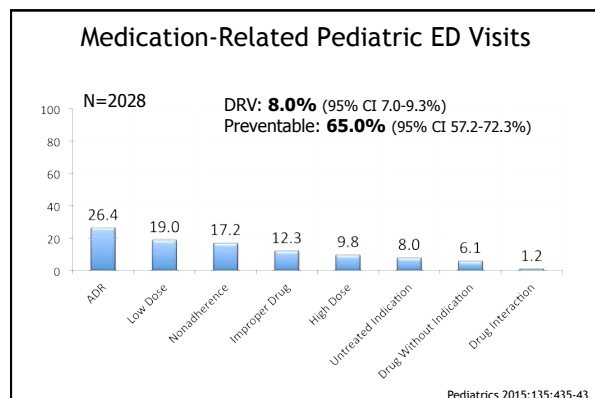


National Health Expenditure Database, 2013, Canadian Institute for Health Information

Adverse Drug Events in Canada



CMAJ 2008;178:1563-9; Pediatrics 2015;135:435-43; CMAJ 2004;170:345-9; CMAJ 2004;170:1678-86; Ann Emerg Med 2011;58:270-9.



Pharmacists' Scope of Practice in Canada

Scope of Practice¹

		Province/Territory										
		BC	AB	SK	MB	ON	QC	NS	NL	NT	YT	NU
Prescription Authority (Schedule 1 Drugs)²	Independently, for any Schedule 1 drug		X	X	X	X	X	X	X	X	X	X
	In a collaborative practice setting/agreement	X	X	X	X	X	X	X	X	X	X	X
	Initiatives ³											
	For minor ailments/conditions					X	X	X	X	X	X	X
	For smoking/substance cessation					X	X	X	X	X	X	X
	In emergency	X	X	X	X	X	X	X	X	X	X	X
	Independently, for any Schedule 1 drug ⁴	X	X	X	X	X	X	X	X	X	X	X
	Independently, in a collaborative practice ⁵	X	X	X	X	X	X	X	X	X	X	X
	Adjust 1 ⁶ Therapy					X	X	X	X	X	X	X
	Make therapeutic substitution	X	X	X	X	X	X	X	X	X	X	X
Change drug (dosage, formulation, regimen, etc.)	X	X	X	X	X	X	X	X	X	X	X	
Renew/extend prescription for continuity of care	X	X	X	X	X	X	X	X	X	X	X	
Injection Authority (BC or only)⁷	Any drug or vaccine	X					X		X		X	X
	Vaccines ⁸						X		X		X	X
	Travel vaccines ⁹					X	X		X		X	X
	Influenza vaccine					X	X		X		X	X
Labi		X	X	X	X	X	X	X	X	X	X	
Tests		X	X	X	X	X	X	X	X	X	X	
Regulated pharmacy work¹⁰												
<p>Scope of practice regulations, having regulatory authority or independent (where applicable), have been in effect many years and are known for accuracy.</p> <p>1. Scope of practice (drug therapy) that is outside drug control (over the Controlled Drugs and Substances Act).</p> <p>2. Some provinces have been using pharmacist supervision for drug therapy.</p> <p>3. Independent pharmacist therapy (drug therapy) where their own authority, according to existing law, precludes any existing law precluding this type of service.</p> <p>4. Some provinces have been using pharmacist supervision, certification and/or authorization for drug therapy.</p> <p>5. A health's right to be the source of all services in the country. These refer to the Uniformed Services for the Medical Sciences (USMS).</p> <p>6. The pharmacist's responsibility to ensure that the patient's health is protected.</p> <p>7. The pharmacist's responsibility to ensure that the patient's health is protected.</p> <p>8. A health's right to be the source of all services in the country. These refer to the Uniformed Services for the Medical Sciences (USMS).</p> <p>9. A health's right to be the source of all services in the country. These refer to the Uniformed Services for the Medical Sciences (USMS).</p> <p>10. The pharmacist's responsibility to ensure that the patient's health is protected.</p>												

Implemented in jurisdiction

Pending legislation, regulation or policy for implementation

Not implemented

¹Source: Health Canada, 2014.

²Source: Health Canada, 2014.

³Source: Health Canada, 2014.

⁴Source: Health Canada, 2014.

⁵Source: Health Canada, 2014.

⁶Source: Health Canada, 2014.

⁷Source: Health Canada, 2014.

⁸Source: Health Canada, 2014.

⁹Source: Health Canada, 2014.

¹⁰Source: Health Canada, 2014.

Challenges to Practice Innovation

- Recognition of value of pharmacy services
- Establishing new models of practice
- Sustainable funding/remuneration models
- Access to information
- Resources and workload
- Communication and change management
- Liability
- Pharmacist/Pharmacy Technician job satisfaction
- Continuing education and training
- Competing interests

Are pharmacists the ultimate barrier to pharmacy practice change?

Meagen Rosenthal, MA; Zubin Austin, BScPhm, MBA, MIS, PhD; Ross T. Tsuyuki, BSc(Pharm), PharmD, MSc, FCSHP, FACC

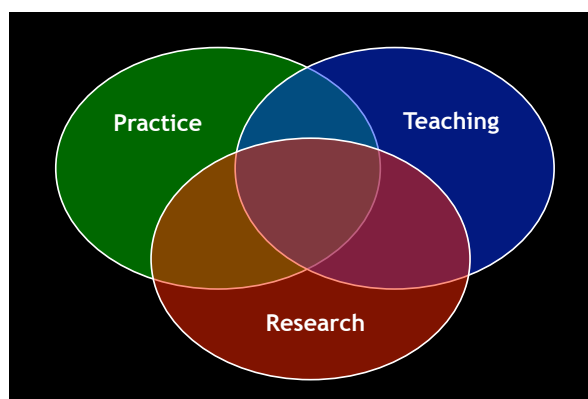
- Lack of confidence
- Fear of new responsibility
- Paralysis in the face of ambiguity
- Need for approval
- Risk aversion

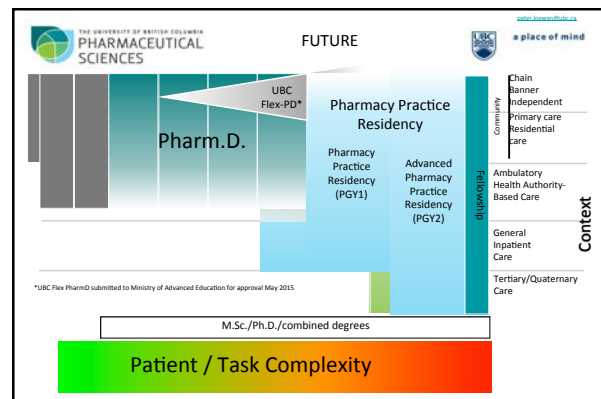
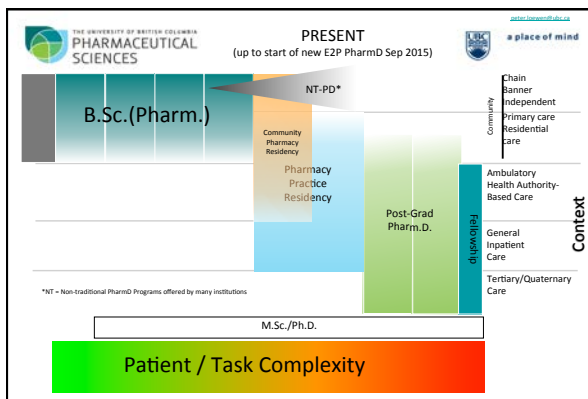
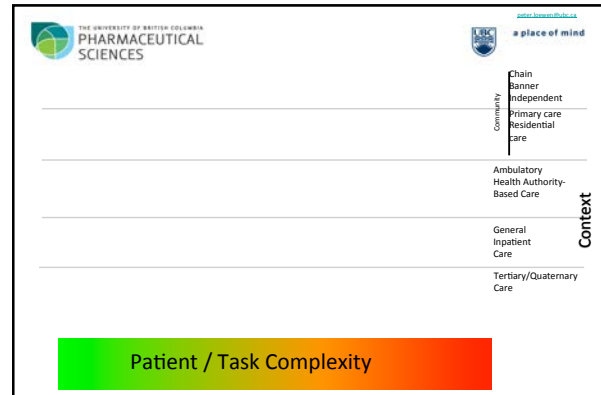


CPJ/RPC • JANUARY/FEBRUARY 2010 • VOL 143, NO 1

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Pharmacy Students Leading Pharmacy Practice Change

A Guide for Students to Negotiate for Patient-Centred Care

It's time for pharmacists to take increased accountability and responsibility and use the knowledge and skills acquired through their extensive education and show the nation that "patient-centred, outcome-focused care" is and always was the vision for pharmacy

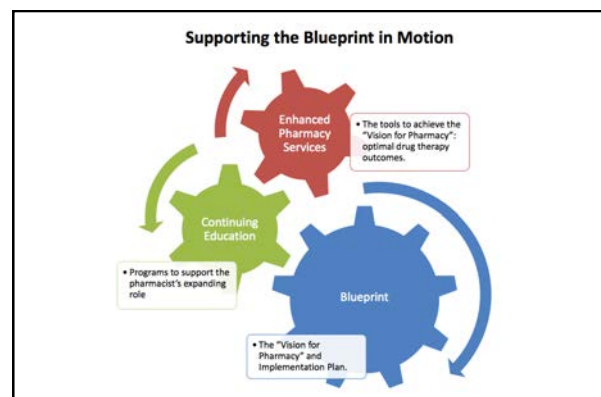
Jennifer Mulvey, Dalhousie University 2008

"We may sit idle and let other professions take charge of the new order of health or we may become leaders and use our expertise to encourage a collaborative environment, where each patient receives the best possible care."

Bobby Currie, University of Manitoba 2009

"If positive associations between professions are made and solidified during university, they stand a good chance of being upheld throughout our years of practice. The best way to achieve this is to gain experience working together early on and learning what special qualities we each bring to the bigger picture"

Hayley Doyle, Dalhousie University 2010



ADAPT Patient Care Skills Development

Announcement: The ADAPT program is closing.

After years of successfully training pharmacists to expand their patient care skills and transform their practice, the ADAPT program is coming to an end. The award-winning program has helped almost a thousand pharmacists across Canada since it started in 2010.

If you've ever considered taking ADAPT to up your game and improve your practice, don't miss your chance. Each course will be offered one last time, so you can still complete all four and challenge for the ADAPT Certificate in Patient Care Skills, or choose how many you want to complete and pay as you go.

Courses:

- Course 1: Medication Assessment and Counselling
- Course 2: Patient Interviewing, Assessment and Documentation
- Course 3: Evidence-based Clinical Decision Making
- Course 4: Putting It All Together: The ADAPT Certificate in Patient Care Skills

Take the self-assessment (required) to find out if ADAPT is right for you. Then contact your school to find the nearest host for your schedule. We'll send you a link to get to know the new ADAPT!

ADAPT gives you the foundational patient care and medication management skills you need to fully leverage expanded scopes of practice. It changes how you practice, unlike you practice.

Education and Pharmacy Practice Innovation

- Core curricula prepare student for entry-to-practice
- Patient-centered, outcome-focused SPEP environments
- Pharmacy educators and learning facilitators
- Interprofessional/intraprofessional education
- Integrated teaching, learning and assessment
- Clinical decision making tools/processes
- Critical appraisal skills
- Communication skills
- Continued professional development



Effectiveness of Interventions by Community Pharmacists to Improve Patient Adherence to Chronic Medication: A Systematic Review

Ann Pharmacother 2005;39:319-28.

"Counseling, monitoring and education showed minor effects in some studies and none in others. The evidence is weak to support any particular recommendation for pharmacist interventions"

Interventions to Enhance Patient Adherence to Medication Prescriptions

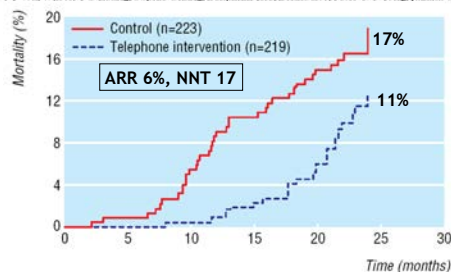
JAMA. 2002;288:2868-2879

Scientific Review

"Current methods of improving medication adherence for chronic health problems and mostly complex, labour-intensive and not predictably effective"

Effectiveness of telephone counselling by a pharmacist in reducing mortality in patients receiving polypharmacy: randomised controlled trial

Jennifer Y F Wu, Wilson Y S Leung, Sophie Chang, Benjamin Lee, Benny Zee, Peter C Y Tong, Juliana C N Chan



BMJ. doi:10.1136/bmj.38905.447118.2F (published 17 August 2006)

A Randomized Trial of the Effect of Community Pharmacist Intervention on Cholesterol Risk Management

Arch Intern Med. 2002;162:1149-1155

The Study of Cardiovascular Risk Intervention by Pharmacists (SCRIP)

Ross T. Tsuyuki, BSc(Pharm), PharmD, MSc; Jeffrey A. Johnson, BSc, PhD; Koon K. Teo, MB, PhD; Scot H. Simpson, BSc, PharmD; Margaret L. Ackman, BSc(Pharm), PharmD; Rosemarie S. Biggs, BPharm; Andrew Caric, MD, MSc; Wei-Ching Chang, PhD; Vladimir Degen, MD; Karen B. Farris, BScPharm, PhD; Donna Galvin, BSc(Pharm), William Sencich, MSc, PharmD; Jeff G. Taylor, BSc, PhD; for the Study of Cardiovascular Risk Intervention by Pharmacists (SCRIP) Investigators

A Randomized Trial of the Effect of Community Pharmacist and Nurse Care on Improving Blood Pressure Management in Patients With Diabetes Mellitus

Arch Intern Med. 2008;168(21):2355-2361

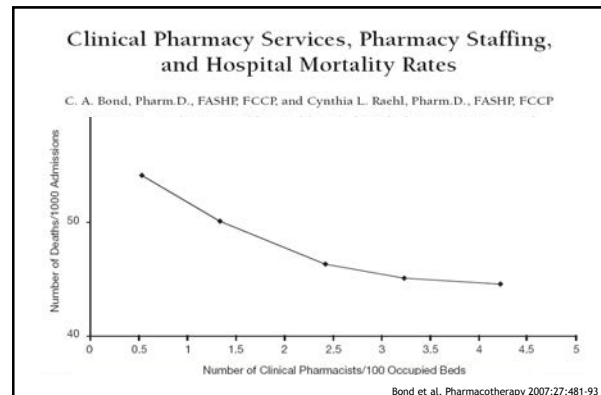
Study of Cardiovascular Risk Intervention by Pharmacists-Hypertension (SCRIP-HTN)

Donna L. McLean, MN, RN-NP; Finkay A. McAlister, MD, MSc, FRCP; Jeffrey A. Johnson, BSc, PhD; Kathryn M. King, RN, PhD; Mark J. Mahowesh, BSc, PharmD; Charlotte A. Jones, PhD, MD, FRCP; Ross T. Tsuyuki, BSc(Pharm), PharmD, MSc, FCSHP, FACC; for the SCRIP-HTN Investigators

Pharmacist Care of Patients With Heart Failure
A Systematic Review of Randomized Trials *Arch Intern Med.* 2008;168(7):687-694
 Sheri L. Koshman, BSc(Pharm), PharmD, ACPR, Theresa L. Charrois, BSc(Pharm), MSc;
 Scott H. Simpson, BSc, PharmD, MSc; Finlay A. McAlister, MD, MSc, FRCPC;
 Ross T. Tsuyuki, BSc(Pharm), PharmD, MSc, FCSHP

Clinical Pharmacists and Inpatient Medical Care
A Systematic Review *Arch Intern Med.* 2006;166:955-964
 Peter J. Kaboli, MD, MS; Angela B. Hoth, PharmD;
 Brad J. McClunon, MD, PharmD; Jeffrey L. Schnipper, MD, MPH

Capturing Outcomes of Clinical Activities Performed by a Rounding Pharmacist Practicing in a Team Environment
The COLLABORATE Study [NCT00351676]
(Med Care 2009;47: 642-650)
 Mark J. Makowsky, BSP, PharmD, ACPR,* Sheri L. Koshman, BSc(Pharm), PharmD, ACPR,†
 William K. Midodzi, PhD,‡ and Ross T. Tsuyuki, BSc(Pharm), PharmD, MSc,‡



You Would.....

- Use **more pharmacists**
- Use **less pharmacists** because you prefer a higher rate of mortality in your patients
- Use **less pharmacists** because you prefer for your patient to have more adverse effects
- Ignore the studies and await confirmatory results from a third study

Challenges to Practice-Based Research

- Expertise and critical mass
- Education and training
- Funding and other resources
- Workload of clinicians
- Knowledge translation

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Practice Innovation

- Develops a **collective vision for pharmacy practice** that fosters excellence in pharmacy practice, teaching, and research.
- Provides leadership in **developing contemporary practice models** that focus on collaborative team-based patient-centred care and promote practice change and innovation.
- Develops **affiliations/partner agreements, clinical and/or part-time faculty appointments** to expand clinical-based faculty to enable support for our academic programs, expand clinical/pharmacy practice/outcomes-based research capacity, and enable and accelerate knowledge translation to practice.

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Practice Innovation

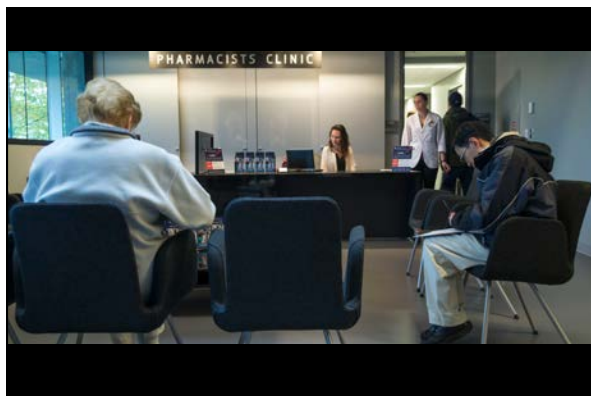
- Develops **innovative experiential training opportunities** of the quality necessary to meet the learning outcomes of our academic programs to foster synergistic relationships with academic and practice based pharmacy clinicians and educators.
- Collaborates and **liaises with stakeholders in pharmacy** to enable necessary collective support to innovate the practice of pharmacy and link pharmacy practice innovation with health policy/outcomes.
- Contributes to the planning necessary for the **development of post-graduate professional education programs**.

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UBC Pharmacists Clinic

- Model of Patient Care Practice
 - pharmacists working at maximum scope
- Experiential Education
 - students and practitioners
- Practice Innovation & Research
 - living lab

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Service Models

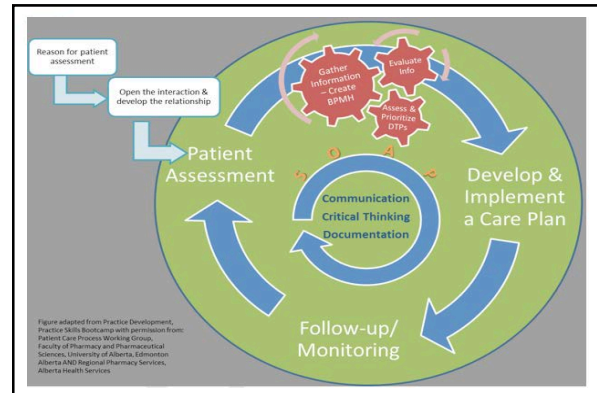
- Pharmacist located at UBC Pharmacists Clinic
 - pharmacist as off-site consultant
 - virtual collaboration
 - in-person, telephone and telehealth service
- Pharmacist co-located in physician's clinic
 - scheduled 1:1 patient appointments
 - joint consultations with patients
 - in-person and telephone service

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During an Appointment

- Comprehensive medication management (CMM)
 - Rx, OTC, NHP
- Patient education
 - Health conditions, medications, devices
- High quality recommendations for the patient and physician (written and verbal)
- Follow-up with patient and care team to implement plan and monitor progress

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Approach

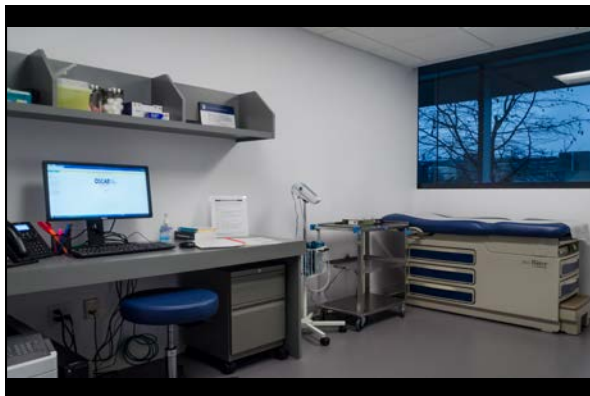
- Relationships, trust, respectful collaboration
 - existing relationships maintained & supported
- 60 min initial, 30-60 min follow-ups
 - In-person, by telephone or by telehealth in selected remote communities
- Standardized service, expertise, time
 - Focus on outcomes, unmet patient needs
- No prescription filling services
- Funding

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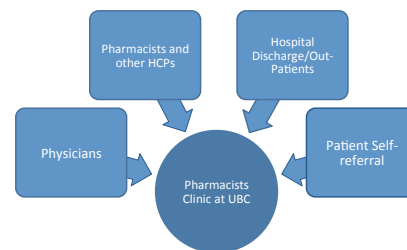
Current Resources

- Five technology-enabled consultation rooms
- Staff
 - Clinic administrator (full time)
 - Patient support and reception (full time)
 - Director (full time)
 - 3.2 FTE pharmacists (2 part-time, 2 full time)

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Referral Sources



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Metrics

Parameter	Value
Months in operation	29
Patients	3922 (~ 135/month)
Referral source	Physician 64% Other 36%
Service model	Consultation 60% Co-location 40%
Learners	304

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Nov/13 – Mar/16

Initiatives

- Systems
 - referral, intake, service delivery, communication
- Technology
 - OSCAR-EMR, Labs
- Models of Care
- Partnerships
 - First Nations Health Authority

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Our Vision

All patients taking medications will receive optimal benefit from their therapy and will understand their treatment decisions.

About Us

The Pharmacists Clinic - UBC Faculty of Pharmaceutical Sciences is where expert pharmacists work with patients and other health care professionals to optimize patient drug therapy outcomes.

We are Canada's first university-affiliated, licensed, pharmacist-led patient care clinic. We provide:

- The highest possible standard of drug therapy consultation services to patients.
- Learning opportunities for health professionals and students.
- Research opportunities for the health care community.

We do not offer prescription filling services.

Our Team

Our patient care practitioners are pharmacists with expertise, experience and knowledge in evidence-based medicine, therapeutic decision making and drug therapy problem-solving.

The entire Clinic team is dedicated to optimizing the care of patients, we serve, facilitating skill development for learners, and enabling pharmaceutical practice change.



Location

Pharmaceutical Sciences Building
Second Floor
2405 Westbrook Mall,
Vancouver BC V6T 1Z3

Traveling By Car
Parking is available at
Westbrook Parkade,
located adjacent to the building.

Traveling By Bus (Translink)
Northbound Buses (Stop ID: 99763) 025, 033, 041,
043, 045, 480
Southbound Buses (Stop ID: 934803) 025, 033, 041,
043, 045, 480, C27

Contact Us

Pharmacists Clinic
Faculty of Pharmaceutical Sciences
The University of British Columbia
Second Floor, 2405 Westbrook Mall,
Vancouver BC V6T 1Z3

Hours: M-F 9 a.m. – 4 p.m.
Phone: (604) 827-2684
Fax: (604) 827-2679
Website: pharmsci.ubc.ca/pharmacists-clinic
General e-mail: pharmacists.clinic@ubc.ca

To book an appointment or send personal information by email, please use the secure message form available via the 'Contact Us' button at pharmsci.ubc.ca/pharmacists-clinic

Pharmacists Clinic



Where PATIENTS meet EXPERT CARE.

pharmsci.ubc.ca/pharmacists-clinic




PHARMACISTS IN COMMUNITY-BASED PRIMARY HEALTH CARE TEAMS IN BRITISH COLUMBIA

A New Model of Integrated Care

Practice Innovation Model

- Pharmacists in primary health care teams to collaborate in the care of high need patients
 - based on pharmacist co-location model at PC
 - focus on prevention & early intervention, CDM, shifting from secondary to primary care settings
- 50-100 pharmacists integrated into 35 Divisions of Family Practice across the Province
- Integration with community and health authority providers for care collaboration and education

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Objectives

- Identify and orient/train licensed BC pharmacists to provide CMM services to complex patients.
- Expand existing systems and workflows for successful integration of these pharmacists in family physician practices within Divisions of Family Practice across the province.
- Co-locate these pharmacists with family physicians in physician offices to work with other members of the health care team.
- Scale up existing Pharmacists Clinic infrastructure to successfully sustain these inter-professional collaborative practices.
- Collect quantitative and qualitative data to evaluate the structure and function of this practice model and to evaluate the impact of this practice model on patient outcomes.

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Scope

- Project Scope
 - 50 pharmacists (1 FTE each) employed by UBC
 - pharmacists paid salary, no claims submitted to MOH
 - 35 Divisions of Family Practice in BC
 - focus on patient care services (i.e. CMM) to complex patients
- Out of Scope
 - services provided by pharmacists in community pharmacies
 - services provided by specialist physician offices
 - services provided on long-term care facilities
 - service to patients in sites operated by Health Authority
 - administrative or project work at physicians offices

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Administration of the Program

- UBC Faculty of Pharm Sci provides provincial oversight
- Human resources, finance, and communications support from UBC
- Operational support from the Pharmacists Clinic
- Quality Assurance
 - Working in a system that expects quality and excellence
 - Overseen and mentored by exemplary clinicians
- Training by UBC available to all pharmacists in BC
- Research and evaluation

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Administration of the Program

- Coordinate pharmacist placements/schedules
- Identify workspace
- Establish communication systems for information sharing
- Provide electronic documentation of care
- Train standardized comprehensive medication management service

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Benefits

- Patient-centered, team-based care
- Pharmacist focus on managing drug therapy problems and preventing/reducing adverse drug events
- Quality assurance
- Optimize health outcomes
- Better physician-pharmacist relations in primary care
- Better pharmacist-pharmacist collaboration in the primary health care continuum

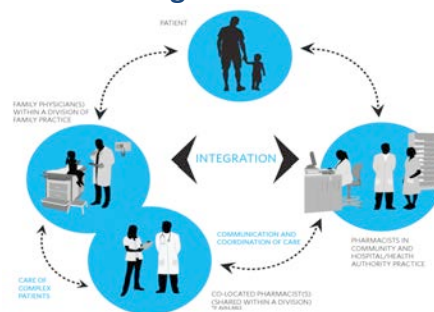
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Benefits

- Existing patient-pharmacist relationships are respected and preserved
- Pharmacists work together across primary care and community pharmacy sites
- Collaboration in patient assessment, care planning, follow-up and evaluation
- Pharmacist access to clinical and education support for continued professional development
- Network of pharmacists across acute care, primary care, tertiary care and community-based practice

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Integrated Care



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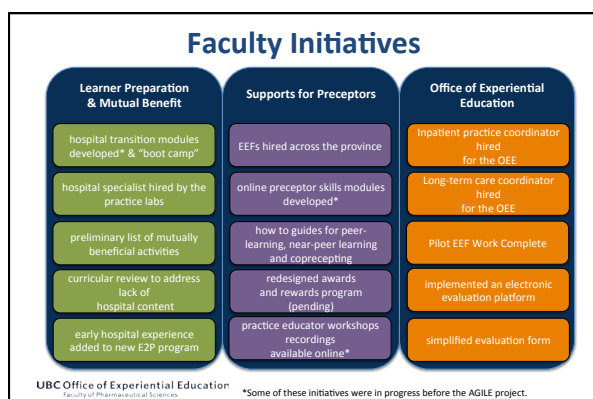
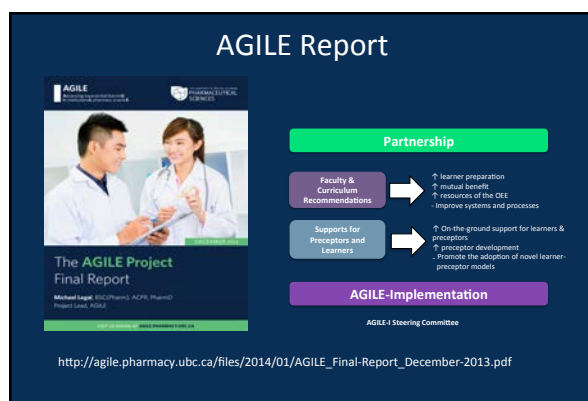
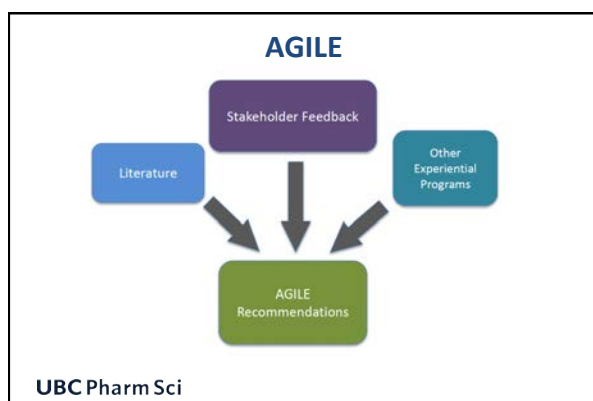
Source: Office of the Associate Dean, Practice Innovation
Faculty of Pharmaceutical Sciences, UBC 2015



AGILE

- To develop recommendations that will inform new approaches to institutional experiential pharmacy education in BC
 - solutions for capacity concerns
 - increase support for preceptors/learners
- Recommendations in several key areas:
 - preceptor-learner models
 - supports for preceptors and learners
 - learning facilitator duties and responsibilities
 - preceptor training and credentialing
 - preceptor incentives
 - knowledge resources/faculty resources
 - description of responsibilities for residents and PharmD students when in teaching role

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The Initiative for Sustainable Health Care

The Initiative for Sustainable Health Care will be housed in the Faculty of Pharmaceutical Sciences and will be led by a Professorship in Sustainable Health Care. The mission of this initiative is to provide a neutral balancing voice and an opportunity for ongoing dialogue and research on economic principles of health care sustainability, with a focus on the role of Pharmacy and Pharmaceuticals.

The role of the Professorship in Sustainable Health Care will include:

- **Liaising** with researchers within the Faculty of Pharmaceutical Sciences to develop new research in health outcomes, economics and policy.
- **Developing** integrated relationships between industry, government and academia to define information to be collected, reaching agreement on the process for its collection and creating joint opportunities to discuss its implications.
- **Ensuring** that accurate and appropriate information for informed, evidence-based decision making is conveyed to a broad audience.
- **Educating** entry-to-practice pharmacy students as thought leaders who are prepared to have a voice in decision-making for access to beneficial medications for their patients.



Professorship in Medication Adherence

With the aging population and increased use of medication for the management of chronic disease, adherence becomes a central issue in a sustainable health care system. The Professorship in Medication Adherence will focus on developing methodologies that will have the greatest impact to assist pharmacists with developing adherence plans for complex regimes to optimize patient health outcomes.

The role of the Professorship in Medication Adherence will include:

- **Educating** students and health practitioners with an increased emphasis on the clinical skills required to support medication adherence.
- **Evaluating** different sets of adherence tools to look for synergies, efficiencies and optimal solutions for patient care.
- **Developing** strong inter-professional teams to create and implement successful models of adherence.
- **Identifying** workable and practical adherence approaches and methodologies that will influence drug plan benefits and policy to ensure optimal care for patients.

Faculty Cross-Appointments with Pharmacists in the Health Authorities in BC

A key component to enable the vision and mandate in Practice Innovation will include developing expanded UBC-Health Authority partnerships throughout the province by increasing clinical cross-appointments. These will build on a current model of partnership with Health Authorities but with refined and renewed emphasis in the areas of clinical education and clinical research.

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 **a place of mind**
THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Pharmaceutical Sciences

Academic Leadership in Pharmacy Practice Innovation

Peter J. Zed, BSc, BSc(Pharm), ACPR, PharmD, FCSHP
Professor and Associate Dean, Practice Innovation
Associate Member, Department of Emergency Medicine, Faculty of Medicine

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