

IMPACT News



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Project Goal:

- To improve patient outcomes by optimizing drug therapy through a community practice model that integrates pharmacists into family practices.

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What is IMPACT?

IMPACT is a multi-site demonstration project involving 7 pharmacists, 70 family physicians and up to 140,000 patients. A pharmacist with special training will work 2.5 days per week for 1 year within each practice site. The integrated pharmacist will coordinate a multifaceted intervention aimed at optimizing drug therapy to improve patient outcomes such as blood pressure, cholesterol, diabetes, pain control, and constipation.

The pharmacist will conduct patient assessments for medication prob-

lems, optimize office medication management, and provide drug therapy information and education.

The project will also explore the role of electronic medical records in facilitating pharmacist integration.

A tailored training and mentorship program along with the Ontario Pharmacists' Association Drug Information Centre will support the pharmacists in their new clinical role.

Family physicians from a range of group practice models are participating in this project. Family physicians and members of the

practice team will work closely with the pharmacist in implementing strategic interventions.

The project will use quantitative and qualitative methods to evaluate the process of integration, pharmacist service uptake, drug-related patient outcomes and the costs associated with program implementation for sustainability.

The aim is to develop an effective family practice-pharmacist practice model.

See: www.impactteam.info/

How Was the IMPACT Model Developed?

Seniors Medication Assessment Research Trial (SMART), a large community-based randomized controlled trial was completed by McMaster University Department of Family Medicine.

In SMART, seniors on multiple medications were referred for a consultation with a specially trained pharmacist in physicians' offices. After the consult the pharmacist telephoned patients twice and revisited the family physician once to discuss their recommendations.

Physicians were receptive to solving drug-related problems, suggesting col-

laboration between physicians and pharmacists is feasible. For more information on the SMART Project, visit:

www.impactteam.info/past.htm



John and Connie Sellors, SMART PI and Coordinator

(IMPACT strengthens and expands upon the SMART interventions in the following ways:

- Integrating pharmacists into the practice will

facilitate collaborative working relationships between pharmacists and physicians, office staff and patients.

- Trust within the working relationships will facilitate the uptake of recommended therapeutic strategies to help address drug-related problems.
- The link to Drug Information expertise will increase the pharmacists' efficiency and provide physicians with up-to-date, easy-access drug information resources.
- The intervention includes evidence-based

...See *MODEL*, Page 2



"This really opened my eyes to how different things are in primary care - and what an important role pharmacists can play!"

—IMPACT Pharmacist

Family Practice TIPS: Drug Prescribing in Renal Failure

Renal function should be considered when choosing medications and dosages.

Decreasing renal function is a common and frequently unrecognized condition in the elderly. Serum creatinine, unfortunately, underestimates renal function in cases of advanced age and decreased muscle mass.

A better estimation of renal function is the calculated creatinine clearance. The Cockcroft and Gault formula is one method commonly recommended (see below). Once im-

paired renal function is identified, family physicians should adjust medication dosages appropriately, monitor drug levels and avoid nephro-toxic drugs.

Drugs commonly used in family practice that may need dose adjustments in impaired renal function:

- Acetaminophen
- Ramipril
- Metformin
- Lithium
- Aminoglycosides
- Morphine
- Venlafaxine

*B. Farrell, PharmD
K. Pottie, MD, MCISc*

Cockcroft/Gault Formula

For males:

$$\text{CrCl (ml/min)} = \frac{(140 - \text{age}) \times \text{weight (kg)} \times 1.2}{\text{Cr (mmol/L)}}$$

For females, multiply by 0.85

MODEL (continued from page 1)

practice change strategies such as interdisciplinary face-to-face interaction, patient-specific audit and feedback, educational detailing and consensus building for medication management system innovation.

- Training and mentoring will enhance the integrated pharmacists' patient assessment skills and familiarity with family physician office practice.

IMPACT will explore physician initiated and indicator-initiated methods of patient referral. The project will remain flexible to facilitate the integration of the pharmacist into unique family practice contexts.

C. Sellors, BScPhm

Next Issue: The contribution of facilitation research on the IMPACT model.



Above: Pharmacists participate in a "family practice simulator" to prepare them for work in a family practice setting.

How Were the Pharmacists Trained?

Toronto, April 2004: IMPACT pharmacists participated in a training workshop focused on practicing in primary care settings.

This workshop provided an opportunity to learn new skills and to interact with physicians, mentors, IMPACT pharmacists and project staff.

- Day One included:
- an interactive patient-centred evidence-based medicine workshop
 - a mentor training discussion group where pharmacist mentors discussed how to optimize their mentorship role with IMPACT pharmacists during the one year study period.
 - presentation on personal

experiences of pharmacists working in primary care, communications skills, and patient interviewing and charting.

Day two: IMPACT pharmacists participated in the Family Health Simulator (FHS), an unique opportunity to practice primary care pharmacy skills using patient simulations. Working with real physicians, a real nurse and simulated patients, each participant worked through a full day of simulated patient interviews, chart reviews and drug information in primary care. The IMPACT pharmacists received both written and verbal

feedback, and all pharmacists participated in a post-workshop debriefing session with the physicians, nurses and patients. The physicians also learned about collaborating with pharmacists in their physician role in the FHS.

The workshop was a very valuable learning experience and a useful introduction to their roles in primary care practices. As one participant put it, "This really opened my eyes to how different things are in primary care - and what an important role pharmacists can play!"

Z. Austin, PhD

Site Profile: Bruyère Family Health Network

On June 1st IMPACT pharmacist Natalie Jonason joined the team of family physicians, nurses, residents, nurse practitioner and social worker at the Bruyère Family Health Network (FHN).

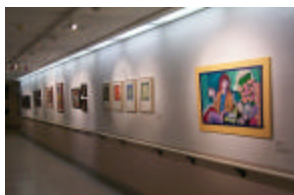
The Bruyère FHN, a bilingual teaching centre for the University of Ottawa, receives more than 28,000 patient visits per year. Along with graduate and undergraduate medical education, the staff provides expertise in the

fields of evidence-based medicine, women and adolescent health, medical informatics and immigrant and refugee health. The centre also features its own art gallery dedicated to exhibits that explore the themes of culture, art and healing.

The inner city location and the University affiliation provide the Family Medicine Centre with a diverse group of patients, including diplomats, writers and visual artists, uni-

versity professors, and refugees and retirees.

PEPPER, an EMR developed by IMPACT co-investigators Gary Hollingworth and Robert Bernstein, will be used to explore the role of medical informatics in the integration of a pharmacist into group family practice.



Bruyère Gallery

Building Collaborative Working Relationships...

About the Researchers

Principal Investigators:

Lisa Dolovich is a nationally recognized expert in pharmacy practice research. She has led numerous studies evaluating different facets of pharmacist-physician collaboration, the patients' perspective on medication use, and interventions designed to improve how physicians, pharmacist, and patients use medications.

Lisa is the current chair of the Canadian Pharmacy Practice Research Group and the Canadian College of Clinical Pharmacy Evidence Based Practice Group. She leads a CIHR New Emerging Team that is focused on optimizing drug use in seniors.



In July, 2003 Lisa began a 5 year CIHR Rx&D career award. In 2003, she became the recipient of the first Canadian Pharmacist of the Year Award.

Kevin Pottie is a family physician researcher with an expertise in immigrant health and interdisciplinary research. His Masters of Clinical Science provided foundations in family medicine and his recent research has fo-

cused on the delivery of medical care for immigrants and refugees. He was awarded a Senior Wilson Fellowship for his work on medical education in an age of pluralism.

In 1995, Kevin led an international development project: Optimizing Drug Therapy in the Republic of Georgia, with Médecins Sans Frontières, World Health Organization and the Georgian MOH.

A member of the Elizabeth Bruyère Research Institute, Kevin has presented and published nationally on drug management and interactions. He is recipient of the 2002 PAIRO Excellence in Teaching Award and received a Queen's Jubilee Medal for patient care.

About the Sites....

The following are the **seven practice sites** chosen from across Ontario:

- Beamsville Medical Centre
- Bruyère Family Medicine Centre
- Caroline Medical Group
- Fairview FHN
- Claire-Stewart Medical Centre (Mt. Forest)
- Riverside Court Medical Centre
- Stratford FHN

The practice sites were chosen to represent a diverse range of group family practices:

- Inner-city, urban, suburban and rural
- Electronic medical records and traditional paper charts
- Academic teaching site, community teaching sites, non-teaching sites



Lisa Dolovich and Connie Sellors in Paris (see page 4)

Investigators & Supporting Institutions.....

Principal investigators:

Lisa Dolovich, PharmD, MSc
Kevin Pottie, MD, MCISc

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Kirsten Woodend PhD
Christel Woodward, PhD

Supporting Institutions

McMaster University,
Dept. of Family Medicine
University of Ottawa,
Dept. of Family Medicine
University of Toronto, Faculty of Pharmacy
Centre for the Evaluation of Medicines, St. Joseph's Health Care, Hamilton
Elisabeth Bruyère Research Institute, a University of Ottawa and SCO Health Service Partnership, Ottawa

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The views expressed in this document are those of the IMPACT Project and do not necessarily reflect those of the OMHLTC.

Awards, Publications, Presentations...

May 18, 2004: Canadian Pharmacists Association (CPhA) Annual Conference in Niagara Falls. Lisa Dolovich and Barb Farrell were awarded the Best Oral Presentation in the Category of "Practice Innovation."

April 28, 2004: European Society of Clinical Pharmacy/ American College of Clinical Pharmacy in Paris,

France. Lisa Dolovich and Connie Sellors presented findings from the SMART Project.

May 25, 2004: Australian-Canada Conference on Population Health entitled "Innovation Through Interaction" in Ottawa. Barb Farrell presented on behalf of the IMPACT Project. Health care researchers and

policy makers attended the conference.

June 12, 2004: Association of Faculties of Pharmacy of Canada in Vancouver. Lisa Dolovich and Zubin Austin presented "IMPACT-Development of a Training and Mentorship Program."

International News

The United Kingdom has been incorporating pharmacists into general practice for years. It is now common to see pharmacists in primary care settings in Britain. In a cost comparison study, savings secondary to pharmacists' drug interventions were double that of the cost of employing the



London Bridge

pharmacists. In terms of outcomes, pharmacists in general practice have been shown to identify and improve compliance, simplify medication regimens, decrease adverse effects, and effectively control and monitor repeat prescriptions.

S. Koshman, BScPhm

From our Intersectoral Advisory Committee...

IMPACT Intersectoral Advisory Committee consists of professionals and government representatives. Several members have served previously with the SMART Advisory Committee.

The committee oversees the progress and assists in program modification, implementation, interpretation of findings and suggests dissemination strategies.

Committee Members:

- Mary Catherine Lindberg: Chair, former Assistant Deputy Minister of Health, Ontario
- Marsha Barnes: Director, Primary Health Care and

Physician Policy Branch, MOHLTC

- Nick Busing: Chair, University of Ottawa, Department of Family Medicine
- Diane Hindman: Designate of Dr. David McCutcheon, Assistant Deputy Minister of Health, MOHLTC
- Wayne Hindmarsh: Dean, Faculty of Pharmacy, University of Toronto
- Jean Jones: representing the Consumers' Association of Canada
- Cheryl Levitt: Chair, McMaster University, Department of Family Medicine

- Stuart MacLeod: Executive Director, BC Research Institute for Children's & Women's Health
- Laura Offord: Program Consultant, Interdisciplinary Practitioner Program, MOHLTC
- Susan Paetkau: Director, Drug Programs Branch, MOHLTC
- Jeff Poston: Executive Director, Canadian Pharmacists' Association
- Deanna Williams: Registrar, Ontario College of Pharmacists

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