

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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Developing the Impact Model : The contribution of System Facilitation

Implementing evidence into practice is a complex task. Traditional knowledge synthesis and dissemination, including practice guidelines, have not proven effective in enhancing physician performance in prevention.

Facilitation is defined as the ability "to make easier." It acts as a primary catalyst for change. In the Ottawa Model of Facilitation a trained facilitator assists family physician practices by tailoring strategies to meet the needs of each practice. The foundation of the intervention rests on evidence-based guidelines and evidence-based tools, but a key to success is the trusting relationship between the facilitator and the members of the practices' interdisciplinary

team. A strong partnership promotes and supports systemic change, marrying the unique practice needs and goals.

Optimizing drug therapy and preventing drug related problems is a large part of family practice. IMPACT's specially trained pharmacists offer a unique opportunity to facilitate the development of innovative

drug-related systems within family practice. Building on the success of Ottawa's facilitation research, integrated pharmacists will work with the practice team to develop drug-related office systems aimed at optimizing drug therapy in community family practice. *Kevin Pottie, MD, and Eileen Vilis, RN*



IMPACT Pharmacists Meeting

Family Medicine Research: Challenges and Opportunities

Research conducted in family medicine is distinguished from other types of research not so much by a specific content area but by a focus on effectiveness rather than efficacy of the interventions. Family medicine researchers are primarily concerned with demonstrating that a particular intervention or treatment can work under 'real life' conditions with as few exclusions as possible.

There are a number of challenges in conducting such 'inclusive' studies ranging from recruitment and randomization issues,

low levels of adherence to the research protocol by physicians, their staff and patients, inability or difficulty to 'blind' the participants, contamination, or co-intervention. While many of these concerns are not unique to family medicine research, they are certainly amplified by our focus on effectiveness.

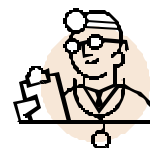
To overcome these challenges, family medicine researchers have to design studies and interventions that are robust, make intuitive sense both to physicians and their patients, can be implemented with mini-

mum level of disruption to the daily operations of the practice, don't assume that an elaborate research infrastructure exists in family practices, and that meet the scientific criteria of good research.

While effectiveness research continues to be undervalued by many institutions, governments, and funding agencies, the result of such research is often immediately applicable and widely generalizable.

Janusz Kaczorowski, PhD

Family Practice Tips Drug Interactions...Some Clinically Important Real life stories



Clinical Problem # 1: TSH = 11.17 miu/L

Rx: Levothyroxine
0.075mg po daily

Ferrous sulphate
300mg po BID

On assessment: Patient taking levothyroxine and iron together in the morning.

Drug Interaction: Iron, as well as calcium, magnesium, aluminum, simethicone, and sucralate, can chelate thyroid hormones leading to decreased thyroid hormone absorption.

Solution Focused Recom-

mendations:

- Change ferrous sulphate administration to 300mg at supper and bedtime (separate from levothyroxine by at least 4 hours)
- Reassess TSH in 8 weeks.

Clinical Problem # 2: Patient experiencing mild leg cramps and has slightly elevated CK. LDL-C = 2.4 mmol/L

Rx: Atorvastatin 10mg po daily
Diltiazem 240mg po daily

On assessment: symptoms started a few weeks after starting atorvastatin.

Drug Interaction: Diltiazem is a CYP450 3A4 inhibitor and can increase levels of statins (by approximately 2.5 times) that are metabolized by this enzyme (simvastatin, atorvastatin, fluvastatin). Pravastatin levels are not affected by concurrent diltiazem therapy because they are not substrates of CYP450 3A4.

Solution Focused Recommendations:

- Discontinue atorvastatin.
- If symptoms resolve reinstate statin therapy with rosuvastatin 10mg po daily or atorvastatin 5mg po daily.

*Lisa Dolovich, PharmD
MSc and Susan Buchkowsky, BScPhm*



How were pharmacists recruited for IMPACT?

Pharmacist recruitment began in February 2004. We distributed an advertisement & job description through the Ontario Pharmacists Association, the Ontario branch of the Canadian Society of Hospital Pharmacists, Professional Practice Conference job fair, and to potentially interested and qualified pharmacists.

Approximately 100 pharmacists contacted the IMPACT office for application packages by email or telephone. Twenty-four pharmacists responded with:

- a letter of interest outlining how they met the required competencies
- 2 references (using a structured form and personal letter)
- a curriculum vitae

A four person selection committee screened each application independently using a structured format to identify potentially successful candidates and then met to select candidates for interviews.

The project team, with a minimum 2 project members per interviews, conducted 13 structured interviews using a rating system. The selection committee met to discuss interview results and determine further action (e.g. telephoning references, requirement for candidates to meet physicians from the practice).

Seven pharmacists were offered positions with specific IMPACT practice sites. Commitment from the pharmacists was confirmed through the signing of a letter of understanding. The project team

informed and thanked unsuccessful candidates and encouraged them to participate again should other similar opportunities arise.

The high number of pharmacists interested in participating in part-time positions with the one-year IMPACT project is encouraging for the feasibility of expanding this role in the future. Pharmacists stated that they applied because of the potential to work closely with physicians and other practice staff, as well as the opportunity to benefit patients and their medication-related care.

*Barb Farrell, BScPhm,
PharmD*



“Pharmacists stated that they applied because of the potential to work closely with physicians and other practice staff...”

Site Profile: Caroline Medical Group

The Caroline Medical Group is a Family Medicine group practice located in Burlington, a growing city of over 140,000 people located on Lake Ontario just outside Toronto. The practice operates as a physician sponsored Health Service Organization.

The 7 family physicians, working together with 2 nurse practitioners, a nurse clinician, two social workers, a chiroprapist, a dietitian, a family therapist, office staff and an administrator, provide a full range of primary care to approximately 12,000 patients.



Services include pediatrics and prenatal care as well as adult and geriatric medicine. All physicians maintain admitting privileges at the Joseph Brant Memorial Hospital and are directly responsible for the daily care of their in-hospital patients as well as being available for first assist in

most surgical cases.

The Caroline Medical Group has been a Residency Teaching Practice for the University of Toronto and McMaster University teaching programs since 1974. It also provides placements for Nurse Practitioner (EC) students. The physicians and health providers at the Caroline Medical Group have a strong history and ongoing interest in family medicine-related research.

Connie Sellors, BScPhm - edited by Caroline Medical Group

Building Collaborative Working Relationships...

About the Co-Principal Investigators



Janusz Kaczorowski is an Associate Professor and research director in the Department of Family Medicine and an associate member of the Department of Clinical Epidemiology and Biostatistics at McMaster University as well as an associate member at the Centre for Evaluation of Medicines at St. Joseph's Healthcare in Hamilton.

He is a sociologist with research background in family medicine, psychology, sociology, and epidemiology. He has over 15 years experience on developing, coordinating, and

completing all aspects of research studies in primary care, several involving seniors and their medication use. He has had several large grants both as principal investigator and co-investigator and has published over 70 peer-reviewed articles.

In 2000, he obtained a CIHR/SSHRC/NHRDP new investigator health career award focusing on the implementation of evidence-based medicine and clinical practice guidelines in primary care settings.

Barbara Farrell is a pharmacist with 12 years of practical experience collaborating with physicians in family practice and Geriatric Day Hospital settings. Her research experience includes a medication seamless care project with family practice sites, community pharmacists and hospital pharmacists, and leading an observational study on medication withdrawal in long-term institutionalized patients. She brings expertise in teaching and mentoring pharmacists in a patient-focused approach and practice change. Barb is the Clinical and Research Coordinator in the Pharmacy Department of SCO Health Service in Ottawa. She is a Fellow of the Canadian Society of Hospital Pharmacists and the 2004 recipient of the Michel Bilodeau Award for the Development of the SCO Health Service as a Centre of Excellence.

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



IMPACT pharmacist Margaret Jin and mentor Natalie Kennie complete a Triathlon together at Lakeside, ON

Investigators & Supporting Institutions.....

Principal investigators:

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Gary Viner, MD
Kris Wichman BScPhm
Kirsten Woodend PhD
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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...

June/July 2004: The *Ontario Pharmacist* featured a summary of IMPACT; the Ontario Pharmacists' Association highlighted key findings of both the SMART and IMPACT projects in their Summary of Proceedings of their recent Primary Health Care Forum: "*The Pharmacist's Role in Primary Health Care.*"

July/August 2004: Publication: *Canadian Pharmacists' Association Journal*: Spotlight on Research Article: "Integrating family medi-

cine and pharmacy to advance primary therapeutics (IMPACT)" by L Dolovich, K Pottie, B Farrell, J Kaczorowski, C Sellors, K Gaebel, Z Austin, for the IMPACT investigators.

October 2004 International Presentations: **WONCA** (World Family Medicine Conference) Orlando, USA: "Integration of family medicine and pharmacy: creating a marriage that does not end in divorce."

By L Dolovich, K Pottie & J Kaczorowski and "Coping with drug interactions: a practical approach for family physicians" by K Pottie. L Dolovich.



Disney World, Orlando, FL

International News

Dr. Karen Farris, Associate Professor in the College of Pharmacy at the University of Iowa recently published "**Enhancing primary care for complex patients**" in the July issue of the *Canadian Family Physician*. This collaborative community-based care

study focused on medication use and improving or maintaining the health of high-risk community dwelling patients. Dr. Farris and colleagues concluded that the formation of primary health care teams- a family physician, a pharmacist and a nurse homecare

case manager- required few structural changes to the existing health care system. Reimbursement options, however, were an issue. Dr. Farris collaborated on the Seniors Medication Assessment Research Trial (SMART) Project.

From our Intersectoral Advisory Committee...

"The IMPACT initiative, to establish a new collaborative model of patient care by integrating pharmacists into a family physician practice, is moving forward to improve patient outcomes from their medications. Over my years at the Ministry of Health and in pharmacy practice and in my past role as Chair of the SMART project committee, I

have found this pairing to be a challenge to both professions. Now as Chair of the IMPACT committee my goal is to further advance a sustainable, collaborative model in which family physicians and pharmacists work together to ensure that patients experience the best outcomes from the medications they take."



Mary Catherine Lindberg,
Chair of IMPACT Intersectoral Advisory Committee Authority, BC

Notable Quotes....

"It has always been a curious omission that pharmacists who dispense 100% of prescribed drugs and family doctors who are responsible for approximately 80% of all prescribing have not succeeded more often in coordinating their efforts to achieve the best health outcomes from pharmacological treatments."

—Dr. Stuart MacLeod, VP, Academic Development, Provincial Health Services, Intersectoral Advisory Committee Member

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