

# Hospital Pharmacy Initiative

Olavo Fernandes



## Pioneering the way in medication reconciliation



Front to back (right side): Anna W. Lee, Emily Musing, Jennifer Harrison, Jack Seki, Catherine Tsai  
Front to back (left side): Yvonne Kwan, Olavo Fernandes, Gary Wong, Sara Ingram, Michael Wong

Medication errors, drug-related problems and adverse drug events most commonly occur as patients move through the interfaces of the healthcare system. Recent evidence shows that about 54% of patients have experienced a medication discrepancy between hospital admission orders and home medications. And 23% of patients have had an adverse event after discharge, more than 70% of which were related to medications.<sup>1</sup>

To address the problem of medication discrepancies, a multidisciplinary team of researchers at Toronto General Hospital, the University Health Network (UHN) and the Leslie Dan Faculty of Pharmacy at the University of Toronto (U of T) undertook a comprehensive study focusing on medication reconciliation. Spearheaded by pharmacist **Olavo Fernandes**, the project represents the first randomized controlled trial using patients to determine if pharmacists can contribute to the reduction of preventable medication discrepancies, and has earned Fernandes this year's Commitment to Care & Service Award for Hospital Pharmacy Initiative. As one judge pointed out, "Olavo has taken the initiative on medication safety in the hospital and has been successful with it."

The study's findings, published in the May 28, 2007 issue of the *Archives of Internal Medicine*, show that collaborative efforts between pharmacists, nurses, surgeons and patients can cut medication discrepancies by half. The project team has also developed a robust practice model designed to minimize drug-related inconsistencies with a structured pre-admission interview by a pharmacist concerning the patient's medication history, the pharmacist's assessment of the prescribed regimen, and generation of a postoperative medication order form.

"Reconciling a patient's home medication regimen with drugs prescribed in hospitals is difficult," emphasizes Fernandes, who is a pharmacist with the UHN and assistant professor at U of T's Leslie Dan Faculty of Pharmacy. "We are seeing sicker patients who are being treated for multiple illnesses. What this study clearly tells us is that involving pharmacists in the assessment of patients' home medications before surgery can reduce medication discrepancies in hospitals."

While interviewing patients and assessing their medication history requires more time up front, Fernandes says study

results prove that identifying medication discrepancies from the outset saves time in the long run.

The impact of Fernandes' team study and recommendations have rippled across Canada and the globe. Medication reconciliation is now a key intervention of the national patient safety campaign called Safer Health Care Now! that is endorsed by the Canadian Patient Safety Institute (CPSI). As well, the World Health Organization (WHO) has selected Canada, through CPSI and the Institute for Safe Medication Practices Canada (ISMP), to lead the implementation of medication reconciliation for countries around the world. In fact, Fernandes has been seconded to ISMP Canada for one year to support this initiative and fulfill WHO's expectations.

Integral to the success of any medication reconciliation strategy is the pharmacist, says Fernandes. "Pharmacists are in a potentially ideal position to support the multidisciplinary team in obtaining accurate and complete medication histories because of their familiarity with medications."

— Jack Kohane

2008 Commitment to Care & Service awards

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### Reference:

1. Cornish PL, Knowles SR, Marchesano R, Tarn V, Shadowitz S, Juurlink DN, et al. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med* 2005; 165(4):424-429.