

Dr. Karim Khan
with Betty Sullivan,
a participant in the
research study.



Following a fall: Health research in translation

For a senior, a fall can be perilous. Falls contribute to major head injuries, hip fractures and loss of confidence to engage in daily life. Statistically speaking, fall-related injuries cost Canada over \$1 billion annually. In B.C., fall-related hip fractures alone are responsible for costs exceeding \$150 million. Strikingly, 20 per cent of seniors who have a fall-related hip fracture die within one year and half of all hip fractures result in a community-dwelling person needing to move to a care facility.

Globally, a great deal of research has been done to identify who is at high risk of fall-related injury and how we can intervene to lower the likelihood of future falls. In 2001, researchers developed a set of international Falls Prevention Guidelines for the assessment and management of falls. To some, this should have meant fallers were well taken care of from that point on. Unfortunately, there is often a staggering delay in what researchers discover and what actually happens in the real world.

To determine whether the Falls Prevention Guidelines were being enacted at Vancouver Coastal Health, Dr. Karim Khan and other Vancouver Coastal Health Research Institute (VCHRI) researchers from the Centre for Hip Health set out to discover what proportion of fallers come to the Emergency Department (ED) with an injury actually receive any elements of guideline care within 6 months. Startlingly, the study revealed that only four per cent received any elements of guideline care and 65 per cent of the fallers had not even returned to their family doctor to have the problem assessed despite being advised by the emergency physicians to do so.

This demonstration of a “gap in care” led VCHRI researchers in collaboration with Vancouver Coastal

Health programmers (Bonnie Lillies, Lead, Seniors Falls and Injury Prevention Initiative) and geriatricians (Drs. Larry Dian, Wendy Cook, and Ken Madden) to collaborate. In 2004, VCH launched the Seniors Falls and Injury Prevention Initiative (SFIP). Its mandate was to reduce falls, cost of falls, and injuries associated with falls. For the first time anywhere in the world, family physicians could refer seniors who had fallen to a service—the Falls Follow-up Clinic—where there would be comprehensive geriatric assessment, structured risk assessment, research-based interventions shown to reduce risk of a fall, and researchers working directly with health care providers to analyze and measure data.

Vancouver Coastal Health is home to a clinic unique in the world. It is based on researchers coming together with health care providers to analyze a problem, provide a solution, measure the results, and continue to innovate. The benefit? Significantly improved health outcomes for frail seniors, rescued health care dollars, and world-leading research that can help others.

To date, over 400 patients have been seen through the clinic. The general age was 82 years, reflecting the high-risk makeup of the patient population. Each patient received six elements of the “Guideline Care.” The six-month follow-up revealed on average patients adopted three or more of these recommendations. Patients who also undertook an additional home-based strength and balance training program cut their falls rate in half. Put another way, this program prevented one fall per faller every six months.

NEXT STEPS

Implementing a partnership with BC Ambulance for assessing and identifying high-risk fallers.

Further randomized clinical trials examining the impact of different exercises regimes on both physical and cognitive health of frail seniors.

Dr. Pierre Guy and Dr. Carlo Marra are leading a study that will calculate the cost of carrying out a falls clinic intervention in patients who have already fallen, and who have come to the Emergency Department at VGH. This will assess the impact of this clinic on health care utilization. This study is original in two ways: it compares people who have already fallen and are at increased risk of falling in the future, and it assesses the cost of the Falls Follow-up Clinic in the context of the Canadian health care system.