

Heart attack survivors who don't fill prescriptions boost risk of death: study

Published: Tuesday, February 26, 2008 | 12:00 AM ET

Canadian Press: Sheryl Ubelacker, THE ASSOCIATED PRESS

TORONTO - About a quarter of heart attack survivors either forget or choose not to fill all their prescriptions, significantly increasing their risk of dying in the first year after leaving hospital, a study suggests.

In an analysis of health and prescription records for almost 4,600 Ontario heart attack patients, researchers found that one in five of all the prescriptions written for them were not filled after discharge from hospital.

In fact, only three out of four patients took all their prescriptions to a pharmacist, the study by the Institute for Clinical Evaluative Sciences (ICES) found.

But the result of not taking recommended medications is potentially lethal: patients who filled none of their prescriptions had an 80 per cent higher risk of dying in the year following their heart attacks, compared to those who took their prescriptions to the drugstore.

Heart attack survivors who filled only some of their prescriptions had a 40 per cent increased chance of dying in the first year, compared to those who got all their prescribed medications, the researchers said.

"The fill rate was higher for the cardiac medications as opposed to the non-cardiac medications ... things like an antibiotic or medication for depression or for diabetes," said co-author Dr. Jack Tu, a senior scientist at ICES.

Cardiac drugs would include ASA, beta-blockers, statins and ace-inhibitors," said Tu, who's also a cardiologist at Sunnybrook Health Sciences Centre in Toronto. "Those would be the Big 4 that we would give to most heart attack patients."

"But still, on average, about 10 per cent of those were never filled."

Not taking an antidepressant could cause a patient to develop depressive symptoms that could result in the person not taking heart medications either, thereby boosting the risk of death, he said.

There is a variety of reasons why someone who has survived a heart attack chooses not to get the drugs prescribed to prevent another one, he said.

"In some cases, the patients may not realize how important they are or may decide that 'I don't like to take medications...'" Tu said. "Sometimes the patients feel they're already on too many medications and don't want to take more, so they don't fill their prescriptions."

Some elderly people who have suffered a heart attack can be on 10 to 15 different drugs for a variety of illnesses, each with its own side-effects and propensity for interaction with one or more of the drugs they're taking.

"And we did find that the patients who were on more medications before their heart attack were less likely to fill their scripts," he said.

The study, published Tuesday in the journal *Circulation*, used the Enhanced Feedback for Effective Cardiac Treatment (EFFECT) registry as its primary source for patient information, which included hospital records from 104 acute-care hospitals in Ontario from 1999 to 2001.

Lead author Dr. Cynthia Jackevicius, an ICES researcher, said "taking medications such as Aspirin, beta blockers, statins or ACE inhibitors after having a heart attack is a powerful way to prevent future heart attacks and deaths."

"From the data, we were able to see what people were supposed to be filling, as far as prescriptions to prevent heart attack, and whether those prescriptions were filled or not," Jackevicius said in a statement.

The study found that patients who were educated in the hospital about their prescriptions were more likely to fill them.

But Tu said formal counselling about prescribed drugs before a patient is discharged is "extremely variable" among hospitals.

"In some cases it's, 'Here's the prescription and I'll see you in three months.' In other cases it's much more comprehensive. They might get a pharmacist to come along and give the patient formal counselling. You know, 'These are all your medications, this is what each one does, these are the potential side-effects and it's really important you take your medications.'"

"There's room for improvement, there's no doubt about that."

Tu stressed that it's critical that patients take all their prescribed medications.

"If they're unsure about why they're taking the medications or unclear about the adverse affect, don't be shy and talk to your health-care provider and get that information," he said.

"Don't assume it's not important and not take it because potentially you're setting yourself up for serious adverse effects."