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Waiting for coronary revascularization: comparing Swedish practice with a multi-national expert panel's priority scheme

Bernstein SJ[1], Lazaro P[2], Fitch K[2], Aguilar MD[2], Brorsson B[3], Kahan J[4].

[1]University of Michigan, Ann Arbor, MI, USA; [2]*Health Services Research Unit, Institute of Health Carlos III, Madrid, Spain; [3]SBU, Stockholm, Sweden; and [4]RAND Europe, Leiden, The Netherlands.

Abstract

Objective: To determine how often waiting times for coronary revascularization in Sweden were within the maximum recommended time as determined by a multi-national expert physician panel and to evaluate factors effecting waiting times.

Methods: We measured the waiting time between coronary angiography and revascularization for 1,337 chronic stable angina patients who were treated at one of 7 hospitals in Sweden. A panel of 13 cardiothoracic surgeons and cardiologists from the Netherlands, Spain, Sweden, Switzerland and the United Kingdom was convened to assess the appropriateness of, and priority for, a set of hypothetical scenarios for coronary revascularization. They rated the appropriateness of these scenarios using a modified Delphi process and then assigned a maximum waiting time, on a 7 time-frame scale, for the 200 indications rated as appropriate or uncertain in appropriateness. The scenarios included several factors: coronary anatomy, angina severity, ventricular function, stress test results, and surgical risk. We assessed the proportion of patients who underwent revascularization within a computer generated maximum waiting time regression model and within the maximum categorical time-frame as determined by at least 10 of the 13 panelists.

Results: There was significant variation in the maximum recommended waiting time among the panelists (mean waiting time 58 days;standard deviation 40 days). The mean waiting time for the Swedish patients was 58 days, with angioplasty patients (PTCA) waiting 15 fewer days than bypass patients (CABG)(48 vs. 63 days, $p<0.001$). Fifty-three percent of patients waited longer than the computer generated maximum waiting time and 45% waited longer than the maximum time recommended by at least 10 of the 13 panelists. Bypass patients were more likely to experience excess waiting times than angioplasty patients (e.g., 57% vs. 15% for the categorical model; 65% vs 21% for the computer model, respectively).

Conclusions: There was little association between maximum recommended times for coronary revascularization as determined by a multinational expert panel and actual waiting times for Swedish patients. An important factor was the type of revascularization procedure the patient underwent, a factor explicitly excluded by the panel as they felt a patient's waiting time should be determined by their clinical symptoms. The panel's ratings demonstrate differential access to coronary revascularization for Swedish patients referred for PTCA and CABG.

* Current address of the Health Services Research Unit researchers: Tecnicas Avanzadas de Investigacion en Servicios de Salud (TAISS). Cambrils 41-2, 28034, Madrid. Spain. E-mail: taiss@taiss.com.