

The Need of Chest Pain Unit in Israel – Evaluation of the Israeli Health Ministry Recommendations

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Background: There are approximately 150,000 Emergency medicine department (EMD) patient visits/year for chest pain in Israel. However, only 25% of these patients are finally diagnosed as having Acute Coronary Syndrome (ACS). In 2004 the Israeli ministry of health was seeking a pioneer study to examine the cost-effectiveness of CPU's in Israel.

Methods: 407 consecutive patients with a diagnosis of chest pain were entered into a 6 months prospective study. Two hundred of them were admitted to the CPU and 207 to the internal medicine departments. Health care costs, both in hospital and in the community, as well as telephone interviews, were performed at 90 days after discharge.

Results: The internal medicine group had more CAD, HTN, DM, CHF and underwent more PCI and CABG procedures prior to their admission compared to the CPU group. The average TIMI risk score in the internal medicine and the CPU groups was 2.56 (\pm 1.25) vs. 2.05 (\pm 1.12), $p < 0.001$, respectively. The CPU group had more CT angiography and exercise Thallium SPECT scans during hospitalization, and were discharged from the hospital with no recommendation for further imaging in the community as compared to 100 (47.4%) patients in the internal medicine group ($p < 0.001$). Nevertheless, the admission length (in days) was longer in the internal medicine group compared to the CPU group 2.6 (\pm 1.07) vs. 2.2 (\pm 0.88), $p < 0.001$, respectively. At follow up the internal medicine patients had suffered more acute M.I's [4/87 (4.6%) vs. 0/75, $p = 0.06$], had more EMD visits [11/87 (13%) vs. 2/75 (3%), $p = 0.05$] and had more ambulatory imaging exams done [54/88 (61%) vs. 17/69 (25%), $p = 0.001$]. Moreover, after data collection of only 407 patients, as much as 100 admission days and 270 lab tests were saved in the CPU group compared to the internal medicine group.

Conclusions: The treatment of patients with chest pain in the CPU is more efficient and may save time, resources and adverse cardiac events.