

## Delay in Treatment Causes Heart Attack Patients to Postpone Resuming Active Life



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New research shows that holding back the start of treatment in ST-elevation myocardial infarction (STEMI) patients delays their return to pre-illness life and augments early retirement.

These findings were shared by Kristina Laut, PhD student from Arhus, Denmark, at the Acute Cardiac Care Congress 2013 held over the past weekend in Madrid, Spain. System delay is defined as the time lapsed between the emergency call and the reperfusion with primary angioplasty, and this has been linked to higher mortality and heart failure in patients with STEMI according to Ms Laut. It is this delay that is used as a performance measure of care quality in the 2012 ESC STEMI guidelines.

Ms Laut said: "Approximately 45% of patients admitted with STEMI are of working age and we wanted to find out to what extent system delay impacts the timing of return to work and retirement." It is the heavy burden to society with loss of production that motivated this study.

The research was done in Denmark over a data period of 12 years and ended in December 2011. It incorporated just over 4000 patients under 67 years who were in employment at the time of their heart attack and treated with primary percutaneous coronary intervention (PPCI).

Results showed that when system delay exceeded 120 minutes it was indeed associated with postponed return to work as well as with early retirement. Ms Laut suspects that "System delay may directly impact on return to work by causing a reduction in the ventricular function of the heart or there may be other factors involved" She added that there were no gender differences, though it was found that men delayed their return to work more so than women. This detail could be attributed to two facts: there was a smaller number of women involved in the study and men may have more physically demanding work by nature. Ms Laut admits the reasons are unknown and more studies examining the impact of job demands on the timing of return to work will provide further answers.

Another factor investigated was the marital status of the patients, showing that unmarried patients mostly lived in big cities and therefore had a shorter system delay thanks to their vicinity to large catheterisation labs. This category of patients however, had a greater probability of retirement and Ms Laut believes it is due to the fact that unmarried patients are more socially vulnerable or don't have the encouragement and support to stay at work.

Her study presented the finding that system delay was an important performance measure in treating STEMI patients in order to reduce the heavy economic burden for society if patients don't return to work after a heart attack. Improvements were needed in accelerating the PPCI access, optimizing pre-hospital diagnosis as well as in patient education with regards to recognizing symptoms and calling an ambulance. Ms Laut concluded: Investing in healthcare infrastructure and systems is value for money compared to the cost of people losing their ability to work."

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