

Artificial intelligence used for treatment of heart patients

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The University of Tampere and Tampere University Heart Hospital use artificial intelligence (A.I.) technologies developed by VTT Technical Research Centre of Finland in the home care of heart patients. The objective is to recognize serious difficult-to-predict complications as early as possible using the latest methods.

Recently, a clinical study led by Finnish researchers was launched in Tampere to use the latest analytical methods to recognize those myocardial infarction patients at high risk of complications. The project makes comprehensive use of data generated during treatment, but which is usually fragmented into separate systems, and complements it by continuing to monitor how the patient's heart is functioning after he or she has been discharged from hospital. The mass of data thus gathered is analysed using A.I. and machine-learning methods, which have been taught with the help of former patient-treatment data and developed to be applied to myocardial infarction patients.

The results can be used to enhance patient safety and to target the monitoring more accurately at the patients who would benefit the most from it.

The project is being implemented as a collaboration between the University of Tampere, VTT, Polytechnic University of Milan (Politecnico di Milano), the Tampere University Heart Hospital, and the industrial partners GE Healthcare Finland Oy, Bittium Corporation, Clothing+ Oy and Fimlab Oy.