

Breakthrough in drug trial offers hope for heart attack patients

September 13 2010

New findings from a major drug trial have brought experts a step closer to developing a drug which could prevent thousands of British deaths from heart attacks.

Dr Robert Storey, Reader at the University of Sheffield and Consultant Cardiologist at Sheffield Teaching Hospitals, was the UK lead for international trials of a new drug, ticagrelor, which have been taking place over the last six years.

The new findings from one of these studies, the ONSET/OFFSET study, revealed that the platelet function in patients taking ticagrelor recovered much quicker after the drug is stopped, compared to the current gold standard drug, [clopidogrel](#). This study also confirmed that breathlessness occurs as a side effect of ticagrelor but this is not associated with any harmful effects on lung or [heart function](#).

The findings also include a new analysis of a previous trial looking at ticagrelor. This new examination of the PLATO trial, which was completed last year, shows that ticagrelor prevents 1 in 5 deaths after a heart attack, and patients who develop the adverse effect of breathlessness with ticagrelor still benefit from a lower risk of death compared to patients treated with clopidogrel for one year following a heart attack.

Dr Storey presented these latest results at the European Society of Cardiology (ESC) Congress 2010 on 29 August 2010 and was also

involved in a 10,000 patient genetic substudy of the PLATO trial that was presented at the same time and published in The Lancet. This confirmed that patients treated with clopidogrel, who have a genetic variant that reduces the effect of this drug have a slightly higher risk following heart attack but ticagrelor is not affected by this variant and is still more effective than clopidogrel, regardless of a patient's genetic make-up.

Dr Storey has been involved with the development of the new drug, ticagrelor, for the past 12 years. 90 patients from Sheffield, with [acute coronary syndrome](#), were recruited for the PLATO trial, which involved over 18,000 cardiac patients worldwide.

The latest findings come days before World Heart Day (26 September 2010) which celebrates progress in heart health. The study has previously shown for every 1,000 patients treated for one year with ticagrelor instead of clopidogrel, there would be 14 fewer deaths or 11 fewer heart attacks without an increase in bleeding problems.

Dr Storey said: "The latest results on ticagrelor reinforce the positive data from the PLATO trial and suggest that ticagrelor has the potential to improve the quality of care and save many lives in the year following a [heart attack](#), regardless of adverse effects or genetic differences in the response to clopidogrel."

Provided by University of Sheffield

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