

Beta blockers and perioperative care: EHJ addresses controversy

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Since the end of 2011 when the scientific work of Professor Don Poldermans was first scrutinized there has been controversy in the medical world about the use of beta blockers in perioperative care.

The recent publication - and retraction for proper peer reviewing and revision - in the *European Heart Journal* (EHJ) of a paper by Professors Cole and Francis from Imperial College, questioning whether beta blockers in perioperative care could lead to a mortality increase brought the topic back into the public eye.

The EHJ has published an editorial today addressing these questions.

In the editorial, Professors Thomas Lüscher, Bernard Gersh, Ulf Landmesser and Frank Ruschitzka highlight, among other points, that jumping to conclusions may be particularly dangerous for both physicians and patients. In this respect, they pointed out that:

- The meta analysis is mainly driven by the POISE trial that used very high dosages of metoprolol immediately before [surgery](#) with further up-titration, which is not recommended by the ESC Guidelines
- Different dosing and starting time of betablockade before surgery may importantly determine outcome
- A registry published in 2013 in JAMA (2) supports the use of perioperative blockade, at least in non-vascular surgery

- Until today, only one of Prof Poldermans' manuscripts has been retracted, so the validity of his large beta blocker DECREASE trial published in the NEJM remains uncertain (3)
- A proper clinical trial is needed in order to assess whether the use of beta blockers starting at a low dose several days before surgery - as has been recommended by the ESC Guidelines of 2007 - might be beneficial or harmful
- The ESC Task Force led by Professors Steen Dalby Kristensen and Juhani Knuuti, is carefully revising all existing evidence and will present a new version of the ESC Guidelines on "Pre-operative Cardiac Risk Assessment and Perioperative Cardiac Management in Non-Cardiac Surgery" by this summer. These will try to answer two major issues: 1° Should beta blockers be continued in patients scheduled for surgery who are already on them? 2° Should beta blockers be started in patient undergoing surgery who have never received them previously?

Whether beta blockers in perioperative care are protective, safe or harmful continues to be a subject of debate. The new ESC Guidelines will try to clarify some of the controversial issues. As stated jointly by ACC/AHA/ESC, in the meantime, the current position is that "the initiation of [beta blockers](#) in patients who will undergo non-cardiac surgery should not be considered routine, but should be considered carefully by each patient's treating physician on a case-by-case basis."

More information: "Is the panic about beta-blockers in perioperative care justified?" by Thomas F. Lüscher, Bernard Gersh, Ulf Landmesser and Franck Ruschitzka. *European Heart Journal* [DOI: 10.1093/eurheartj/ehu056](https://doi.org/10.1093/eurheartj/ehu056)

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