

# Treatment with CRT pacemakers for cardiac insufficiency



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*Experts Council Swiss Medical Board:*

- Nikola Biller-Andorno, Prof. Dr. med. Dr. phil., ordentl. Professorin für Biomedizinische Ethik, Universität Zürich
- Eva Cignacco, Dr. (PhD, Nursing Sciences), dipl. Hebamme, Institut für Pflegewissenschaft, Universität Basel (*bis Ende 2013*)
- Stefan Felder, Prof. Dr. rer. pol., Ordinarius für Health Economics, Universität Basel
- Peter Meier-Abt, Prof. Dr. med., em. Professor für klinische Pharmakologie & Toxikologie, Präsident Schweiz. Akademie der Medizinischen Wissenschaften (SAMW)
- Urs Metzger, Prof. Dr. med. Dr. h.c., em. Chefarzt Chirurgie, Zürich
- Brigitte Tag, Prof. Dr. iur. utr., ordentl. Professorin für Strafrecht, Strafprozessrecht und Medizinrecht, Universität Zürich

*Operational Body Swiss Medical Board:*

- Max Baumann, Prof. Dr. iur, RA, Institut Dialog Ethik
- Ruth Baumann-Hölzle, Dr. theol., Institut Dialog Ethik
- Hans Bohnenblust, Dipl. Ing. ETH, M.S. MIT, Ernst Basler + Partner
- Brida von Castelberg, Dr. med., Institut Dialog Ethik (*bis Ende 2013*)
- Patrik Hitz, Dipl. Ing. ETH, NDS MiG, Ernst Basler + Partner
- Danielle Stettbacher, Sozialwissenschaftlerin M.A., Ernst Basler + Partner
- Christian Weber, Dr. med., MPH, Ernst Basler + Partner

## **Impressum**

Swiss Medical Board  
Operational Body  
Zollikerstrasse 65  
8702 Zollikon

[info@medical-board.ch](mailto:info@medical-board.ch)  
[www.swissmedicalboard.ch](http://www.swissmedicalboard.ch)

## Summary

Cardiac insufficiency is characterized by the fact that the heart muscle is no longer in a position to pump the quantity of blood that the body needs at an adequate pressure level into the body. In the severe chronic forms of the disorder (referred to as NYHA class III or IV), this is an illness that is severely debilitating for the patient, and which ultimately leads to death. It is estimated that at present there are some 150,000 people in Switzerland who are affected by cardiac insufficiency (in all stages).

With a small group of patients it is possible, by means of special pacemakers (biventricular electro-stimulation or “cardiac resynchronization therapy”, CRT), to improve the pump function of the heart.

Within the framework of this survey, the issue is examined as to whether additional treatment with CRT pacemakers provides a relevant advantage for those patients where survival and the quality of life are concerned. In this context, the potentially negative effects of the therapeutic procedure are also reviewed, and the cost-effectiveness ratio of these devices is assessed.

On the basis of the existing bibliography it can be deduced that for those patients with high-grade cardiac insufficiency (NYHA class III or IV) and CRT treatment, the overall hospitalization and mortality rate can be reduced, and the cardiac function parameters can be additionally improved. The cost-effectiveness ratio for this group of patients tends to be more favorable.

The considerations presented lead to the following recommendations:

- **Treatment with CRT pacemakers is basically sensible for the NYHA class III or IV group of patients.**
- **Most patients in the above group are of advanced age and exhibit other serious disorders, which also impair the quality of life. Important factors are therefore:**
  - **Careful clarification and agreement between the attending physicians, in particular the general practitioner and the cardiologist,**
  - **Providing the patient or his representative with comprehensive information, in particular with regard to a potential prolongation of the condition.**
- **Treatment with CRT pacemakers for patients suffering from NYHA class I and II is not normally recommended.**