Systematic mammography screening

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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
- Stefan Felder, Prof. Dr. rer. pol., Extraordinarius für Health Economics, Universität Basel
- Peter Jüni, Prof. Dr. med., Professor in klinischer Epidemiologie, Universität Bern
- 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
- Patrik Hitz, Dipl. Ing. ETH, NDS MiG, Ernst Basler + Partner
- Daniell Stettbacher, Sozialwissenschaftlerin M.A., Ernst Basler + Partner
- Christian Weber, Dr. med., MPH, Ernst Basler + Partner

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Swiss Medical Board
Operational Body
Zollikerstrasse 65
8702 Zollikon

info@medical-board.ch
www.swissmedicalboard.ch
Summary

Some 5’400 women contract breast cancer in Switzerland every year, and around 1’400 die of this disease annually. “Systematic mammography screening” is the term used to describe the serial radiological examination of women within the framework of a screening program. Thereby all women in a specific age group are invited to an X-ray examination of their breasts which is not conducted by a doctor. In some Cantons, such screening programs are offered to all women aged from 50 to 69.

In the present report by the Swiss Medical Board, the issue is addressed of whether, by using systematic mammography screening, tumors can be detected at an earlier stage, so that the survival time with good quality of life of the affected women can be prolonged, and, in the final analysis, the mortality rate from breast cancer can be reduced. The potentially negative effects of the screenings (such as excess therapy or psychological stress in the event of false positive examination results) are assessed, as well as the costs-effectiveness ratio.

On the basis of the existing literature, the conclusion can be drawn that systematic mammography screening can contribute to the discovery of tumors at an earlier stage. The mortality rate from breast cancer can be reduced slightly by means of the screening: According to study data from the years 1963 to 1991, of 1’000 women with regular screening, 1 to 2 fewer women die from breast cancer than 1’000 without regular screening. This desirable effect is offset by the undesirable effects: Specifically, with about 100 of 1’000 women with screening, erroneous results are produced, which lead to further investigations and, in part, to unnecessary treatments. Furthermore, the costs-effectiveness ratio is very unfavorable.

The findings from the present investigation lead to the following recommendations:

1. **It is not recommended that systematic mammography screening programs be introduced.**
2. A time limit is to be set on existing systematic mammography screening programs.
3. All forms of mammography screening are to be evaluated with regard to quality.
4. Likewise, for all forms of mammography screening, a previous thorough medical evaluation and a comprehensible clarification with presentation of the desirable and undesirable effects are recommended.