

## The Swedish mammography screening trials

### Check up on your sources

**The Danish-language »Medicinsk kommentar» by Ole Olsen and Peter Gøtzsche (Läkartidningen 2000: 97: 286-7) gives the false impression that this report, as well as their article in The Lancet (2000; 355: 131-6), is an official report of the Cochrane Collaboration.**

Several authors in Läkartidningen have accepted this as fact. Jerzy Einhorn refers to »Cochrane-institutet» (twice) and »Cochrane-rapport» (Läkartidningen 2000: 97: 1366-7). Lars Ståhle and Göran Sjönell refer to »Cochrane-institutets granskningar» (Läkartidningen 2000: 97: 742-3), Inger Atterstam refers to »Cochrane-rapport» (three times), »Cochrane-rörelsen» (twice) and »Cochrane-institut» (once) in her two letters (Läkartidningen 2000: 97: 752 and 1466).

#### A letter from Cochrane

Since Gøtzsche's and Olsen's conclusions are in such serious disagreement with the previously published and extensively reviewed studies, which provide convincing evidence that mammography screening significantly reduces mortality from breast cancer, I contacted Dr Andy Oxman, Chair of the Cochrane Collaboration Steering Group. He sent me the follow letter:

Dear Dr Dean:

Although Peter Gøtzsche and Ole Olsen have a Cochrane protocol in The Cochrane Library, they have not yet submitted a Cochrane review to the Cochrane Breast Cancer Group. What they published in the Lancet is not a Cochrane review and has no Cochrane status other than arising from two people who work in a Cochrane Centre. The Cochrane Collaboration had no control

(editorial or otherwise) over this review.

Sincerely,  
Andy Oxman  
Chair, Cochrane Collaboration Steering Group, Health Services Research Unit, National Institute of Public Health, Torshov, Oslo, Norway

The debate in Läkartidning has been founded on a false assumption, which should be corrected. Gøtzsche and Olsen's heavily criticized reports give us no reason to doubt the results published from the highly respected Swedish mammography screening trials. Instead, it teaches us that when hastily written reviews come up with odd results, it is best to check up on the sources.●

#### Author's reply

### Openness about the Swedish breast cancer screening trials is needed

**A scientific paper should be judged solely by its scientific merit, not by the status of its authors or their institution. Whether or not it represents »an official report» of some organisation is irrelevant.**

Contrary to the accusation put forward by Peter Dean, we have not given any »false impression» that our papers in The Lancet [1] and Läkartidningen [2] should represent »an official report of the Cochrane Collaboration».

The fact that other correspondents have referred to our Lancet paper as a Cochrane report or as a paper originating from a Cochrane Institute is understandable as we are both directors of a Cochrane centre.

The Cochrane Collaboration is well known for its critical systematic reviews of the evidence from randomised trials (see [www.cochrane.dk](http://www.cochrane.dk)). What we published in The Lancet was not a Cochrane review – and has never been called a Cochrane review by anyone as far as we know – but we of course used Cochrane principles when we were asked to review the eight mammography screening trials by the Danish Institute for Health Technology Assessment.

#### Three sources of bias

We focussed on the three most important sources of bias in randomised

trials: suboptimal randomisation methods, lack of blinding in outcome assessment and exclusions after randomisation [1]. We were surprised by the serious problems we identified in most of the trials and by the fact that the two high-quality trials failed to find an effect of screening on breast cancer mortality. We therefore questioned the value of screening with mammography and we feel this conclusion was strengthened in the subsequent correspondence in The Lancet [3] where we and others provided new data.

#### Good reason to doubt

In contrast to the opinion of Peter Dean, our analysis has given good reasons to doubt the results from those mammography screening trials which have found a marked positive effect of screening. Our paper has made many researchers and people involved in screening programmes all over the world doubt about the value of screening.

Probably for political reasons, this has mainly been communicated to us personally but there are also examples

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that the doubt has been made public [3]. Jan Hendriks, for example, who developed the Dutch screening programme, has recently declared [4] that if the mortality from breast cancer has not declined drastically in 2003, the nationwide screening programme should be stopped.

## The picture is confusing

In Sweden the picture is also confusing. Based on the Swedish screening trials it was predicted that a substantial decline in breast cancer mortality would be seen around the turn of the century, but last summer Nina Rehnquist, director of the National Board of Health, admitted that it is difficult to explain the lack of a visible effect of screening [5]. Also Ingvar Andersson, primary author of the Malmö screening study, expressed disappointment [5].

Nevertheless, Måns Rosén, also from the National Board of Health, continues to argue that there has been about a 30 % reduction in breast cancer mortality (in accordance with the results from the Two-county study which was sponsored by the National Board of Health). Most recently the »proof» consisted of an epidemiological analysis which involved a fourth grade polynomial! [6].

## Persuasive language

In the lack of good arguments, Peter Dean uses persuasive language with superlatives which, unfortunately, is all too common when the issue is breast cancer screening. He speaks about our »heavily criticized reports» in contrast to »the highly respected Swedish mammography screening trials».

We then wonder why two of these highly respected trials were attacked last summer by the Swedish Medical Research Council and the Swedish Council for Technology Assessment in Health Care with allegations of scientific misconduct [7].

What everybody, and in particular all the women of this world, really need, is a critical, systematic re-evaluation of the best available evidence regarding the possible benefits and harms of breast cancer screening.

## Ongoing review will contribute

Our ongoing Cochrane review on breast cancer screening with mammography [8] will contribute to this and we hope that the Swedish trialists, like trialists from the other countries we have approached, will contribute to this re-

evaluation by disclosing the information needed for such a critical re-assessment.

At an international conference of the screening trialists in 1993, it was recommended that the degree to which causes of death had been reclassified in each of the Swedish studies when they were combined in a meta-analysis needed to be clarified [9]. As far as we know, this has not been achieved.

## Open discussion needed

We feel, however, Sweden owes to the rest of the World to discuss this and other uncertainties openly, e.g. whether the screened and control groups were comparable at baseline and whether exclusions of randomised women led to biased assessments of benefits like we have demonstrated for the trials conducted in New York and Edinburgh [1, 3]. It is somewhat unclear what has happened in the Swedish trials. This is cause for concern and it needs to be fully addressed.

## Final comment

# The articles by Gøtzsche and Olsen are not official Cochrane reviews and lack scientific merit

I agree with the authors that »a scientific paper should be judged solely by its scientific merit». In a recent editorial, Prof N Wald stated: »Gøtzsche and Olsen's paper lacks scientific merit» and »The Lancet should not have published this paper» [1]. Although the authors claim to have »used Cochrane principles», according to Dr C Hyde of the Cochrane Collaboration, they failed to follow 10 important appraisal criteria for reviews [2].

Of the eleven published responses in The Lancet, »All but one correspondent disagreed with the conclusions of the study» [3]. The accompanying Commentary criticized their paper [4].

## No confusion in Sweden

It is not true that two Swedish institutes have attacked mammography screening. SBU in a statement in Dagens Medicin published Sept 21st 1999 concludes: »Statens beredning för medicinsk utvärdering, SBU, har aldrig ta-

## References

1. Gøtzsche PC, Olsen O. Is screening for breast cancer with mammography justifiable? *Lancet* 2000; 355: 131-6.
2. Olsen O, Gøtzsche PC. Der er noget galt i mammografistudierne! Ingen støtte til konklusionen at brystkræftscreening har gavnlig effekt. *Läkartidningen* 2000; 97: 286-7.
3. Screening mammography re-evaluated (letters). *Lancet* 2000; 355: 747-52.
4. Schindele E, Stollorz V. Vorsicht Vorsorge! *Die Woche* 2000; 3. März: 28-9.
5. Atterstam I. Åtgärder ska förbättra mammografi. *Svenska Dagbladet* 7 januari 2000.
6. Rosén M, Stenbeck M. Entydiga resultat i förväntad riktning. *Läkartidningen* 2000; 97: 859-60.
7. Atterstam I. Ohederliga arbetsmetoder undergräver mammografiresultat. *Svenska Dagbladet* 21 juli 1999, sektion 1: 6.
8. Olsen O, Gøtzsche PC. Mammographic screening for detection of breast cancer (Protocol for a Cochrane Review). In: *The Cochrane Library*, Issue 1, 2000. Oxford: Update Software, 2000.
9. Fletcher SW, Black W, Harris R, Rimer BK, Shapiro S. Report of the international workshop on screening for breast cancer. *J Natl Cancer Inst* 1993; 85: 1644-56.

git ställning till om mammografiscreening är till nytta eller ej»

The recent debate demonstrates the unfortunate consequences of evaluations by authors who in my opinion have limited experience and knowledge of the complex issue of breast cancer-screening.

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## References

1. Wald N. Populist instead of professional. *J Med Screen* 2000; 7: 1.
2. Hyde CJ. Is screening for breast cancer with mammography justifiable? Who can tell! The Lancet Interactive, Discussion Groups, 17 February 2000.
3. Lancet readers respond to Danish mammography study (pp 747-52). The Lancet Interactive, Press Release, Volume 355, Number 9205, 26 February 2000.
4. de Koning HJ. Assessment of nationwide cancer-screening programmes. *Lancet* 2000; 355: 80-1.