

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE
CONTROVERSIES & UPDATES IN VASCULAR SURGERY

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Early detection of AAA can be harmful

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Disclosure

Speaker name:

.....Jes S. Lindholt.....

- I have the following potential conflicts of interest to report:
 - Consulting
 - Employment in industry
 - Shareholder in a healthcare company
 - Owner of a healthcare company
 - Other(s)
- I do not have any potential conflict of interest



Early detection of AAA can be harmful

- regardless of screen-detected or incidental

Consequences regarding:

- **Surveillance:**

Potential psychological consequences

- **Preventive repair:**

Potential psychological consequences

Complications

Procedure related death

Surveillance and redos

The Viborg study

1994-98

RCT, N=12,500

The VIVA trial 2008-2011

RCT, N=50,000

The DANCAVAS trial

2015- ongoing

RCT, N=45,000



Detection of AAA may be harmful:

Surveillance: psychological consequences

Experience from non-AAA screening programmes point to risks of:

- Stigmatisation
- Fear,
- Aggression,
- Emotional reactions,
- Psychosomatic reactions,
- Social isolation,
- Nocebo effects (opposite to placebo effect)
- "Blame the Victim" reactions

1. Cockburn J et al. Psychological consequences of screening mammography. *J Med Screen*. 1994;1:7-12.
2. Dean C et al. Psychiatric morbidity after screening for breastcancer. *J Epidemiol Community Health*. 2006;1986:7175.
3. Haynes RB et al. Changes in absenteeism and psychosocial function due to hypertension screening and the repy among working men. *Prev Med*. 1985;7:85.
4. Marteau TM. Psychological costs of screening. *BMJ*. 1989;299:527.
5. Reelick NF et al. Psychological sideeffects of the mass screening on cervical cancer. *Soc Sci Med*. 1984;18:1089-93.
6. Svensson T SM. Ethics and preventive medicine. *Scand J Soc Med* 1990;18:275280. *Scand J Soc Med*. 1990;18:275-80.
7. Tymstra T, Bieleman B. The psychological impact of mass screening for cardiovascular risk factors. *Family Practice*. 1987;4:287-90.



Detection of AAA may be harmful:

Surveillance: psychological consequences

Lindholt JS, Vammen S, Fasting H, Henneberg EW. Psychological consequences of screening for abdominal aortic aneurysm and conservative treatment of small abdominal aortic aneurysms Eur J Vasc Endovasc Surg. 2000 Jul;20(1):79-83.

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Diagnosis of an AAA seems to impair QL permanently and progressively in conservatively treated cases*.

This impairment seems completely reversible by operation compared to controls.

Nevertheless, the impairment seems considerable, and must be considered in the management of AAA and in the final evaluation of screening for AAA.

Jean Pierre Laroche:

Jes, what on Earth do you know about psychometrics?
and you send the questionnaire together with the call for the
annual control scanning
– that´s most likely not generalisable to daily life?

creening



Lancet. 2002;360(9345):1531-9. The Multicentre Aneurysm Screening Study (MASS) into the effect of abdominal aortic aneurysm screening on mortality in men: a randomised controlled trial. Ashton HA, Buxton MJ, Day NE, Kim LG, Marteau TM, Scott RA, et al.

- Theresa Marteau: Professor in psychology, expert in psychometrics with strong criticism of mammography screening in the late 80's
Marteau TM. Psychological costs of screening. BMJ. 1989;299:527.
- Independent research on psychological consequences in MASS

	6 weeks after screening				3 and 12 months after detection of aneurysm or surgery					
	Negative (n=631)	Positive (n=599)	p*	Controls (n=726)	3 months			12 months		
					Surveillance (n=426)	Surgery (n=129)	p	Surveillance (n=426)	Surgery (n=129)	p
State anxiety (20–80), clinical cutoff=42†	29.5	30.9	0.020	31.5	28.9	29.1	0.292	29.6	28.6	0.323
Depression (0–21), clinical cutoff=15†	3.0	3.3	0.092	3.5	3.0	3.0	0.835	3.2	3.1	0.394
SF-36 (0–100)‡										
Physical health	51.2	49.7*	0.003	50.0	51.0	50.0	0.295	49.8	51.1	0.086
Mental health	51.5	49.8	0.003	50.0	51.7	48.4	0.004	50.1	50.6	0.311
EQ-5D‡										
Weighted health index (0–1)	0.83	0.81	0.045	0.80	0.83	0.85	0.084	0.83	0.85	0.577
Self-rating (0–100)	80	76	0.0003	78	77	80	0.0003	76	81	0.0007

p values <0.010 were judged significant. *Comparing men with negative and positive screening results. †Higher scores denote poorer states. ‡Higher scores denote better states.



Detection of AAA may be harmful:

Preventive repair

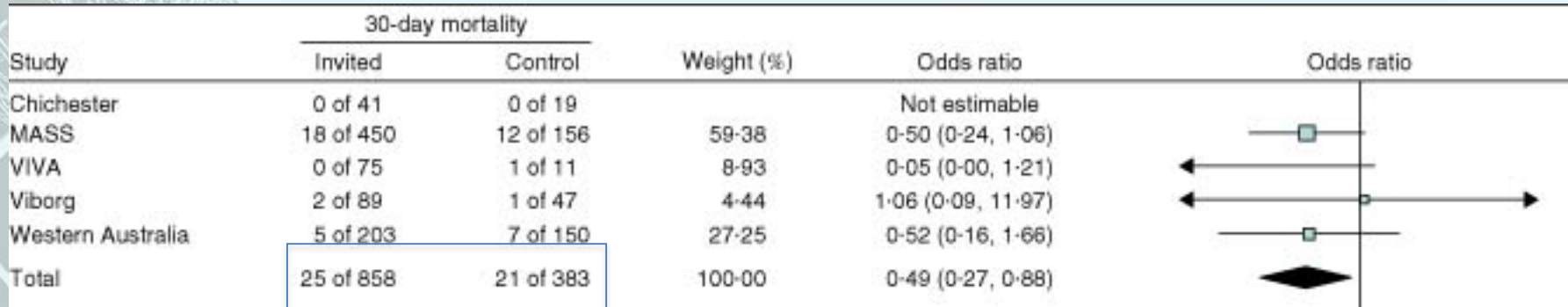
- Screening RCTs show that approx. 2 elective repairs are needed to prevent 1 AAA related death

A genuine ethical dilemma which currently can't be solved

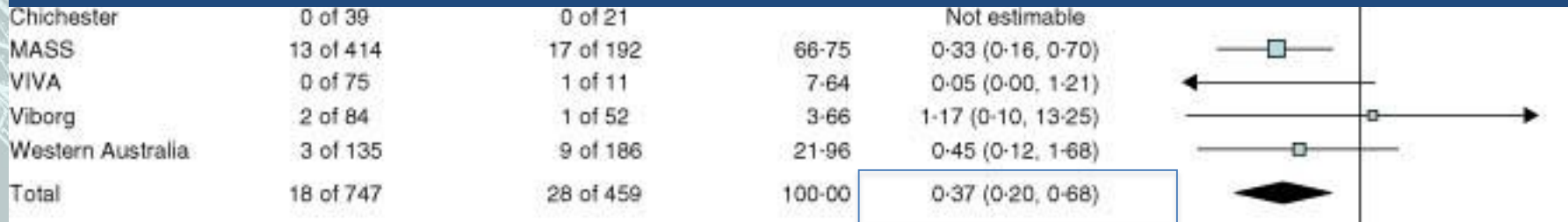
- Approx. half of those referred for elective repair risk complications and death for a condition they never would have had any trouble with, if left unrepaired



Meta-analysis of postoperative mortality after elective repair of abdominal aortic aneurysms detected by screening. Br J Surg. 2011 May;98(5):619-22

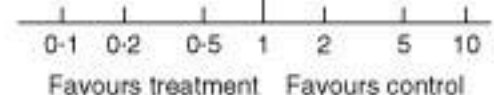


A genuine ethical dilemma which currently can't be solved



Test for heterogeneity: $\chi^2 = 2.57$, 3 d.f., $P = 0.46$, $I^2 = 0\%$

Test for overall effect: $Z = 3.22$, $P = 0.001$



Blind justice?



Population based view:

Longer and better life due to:

- earlier CVD prevention
- earlier preventive repair
- more frequent preventive repair
- less risk of preventive repair
- less reduced QoL due to less surviving rupture



We are doctors
We are intellectuals
We are elitary
We know best
We´ll decide over
others human bodies

Gains QALY cost-effectively



Individualized view

Stigmatisation
Fear,
Aggression
Emotional reactions,
Psychosomatic reactions,
Social isolation
Nocebo effects (opposite to
placebo effect)
"Blame the Victim" reactions
Overdiagnosing
Complications and deaths
for AAA which wouldn´t
have caused you harm left
untreated

Even properly informed, men +65 are not old enough to make a wise decision over their own body

