

Clinical studies of solvent exposed workers. A systematic search for literature

This is an excerpt from the full technical report, which is written in Norwegian.

The excerpt provides the report's main messages in English.

No. 22-2009

Reference list

Title Clinical studies of occupational solvent exposed workers. A systematic search for literature

Norwegian title Kliniske studier av yrkesbetinget løsemiddeleksponerte. Et systematisk litteratursøk

Institution Norwegian Knowledge Centre for the Health Services
(Nasjonalt kunnskapssenter for helsetjenesten)
John-Arne Røttingen, *Director*

Authors Vigdis Lauvrak
Ingrid Harboe
Olaf Aaserud
Gerd Sissel Andorsen
Rita Bast-Pettersen
Randi Olsen
Ulf Skogen
Endre Sundal
Kari Troland
Martin Veel Svendsen
Per Sørstrand
Syvert Thorud
Inger Natvig Norderhaug

ISBN 978-82-8121-287-9

ISSN 1890-1298

Report No. 22 – 2009

Project number 456

Type of report Reference list

No. of pages 74 (attachments)

Client STAMI – The National Institute of Occupational Health, Department heads: labor and environmental medicine.

Subject heading (MeSH) Solvents; Environmental Exposure; Occupational Exposure; Occupational Diseases; Diagnosis; Symptom Assessment; Neurotoxicity Syndromes; Polyneuropathies

Citation Lauvrak V, Harboe I, Aaserud O, Andorsen GS, Bast-Pettersen R, Olsen R, Skogen U, Sundal E, Troland K, Svendsen MV, Sørstrand P, Thorud S, Norderhaug IN. Clinical studies of occupational solvent exposed workers. A systematic search for literature. Report from Kunnskapssenteret no. 22–2009. Oslo: Norwegian Knowledge Centre for the Health Services, 2009.

Norwegian Knowledge Centre for the Health Services summarizes and disseminates evidence concerning the effect of treatments, methods, and interventions in health services, in addition to monitoring health service quality. Our goal is to support good decision making in order to provide patients in Norway with the best possible care. The Centre is organized under The Norwegian Directorate for Health, but is scientifically and professionally independent. The Centre has no authority to develop health policy or responsibility to implement policies.

We would like to thank all contributors for their expertise in this project. Norwegian Knowledge Centre for the Health Services assumes final responsibility for the content of this report.

Norwegian Knowledge Centre for the Health Services
Oslo, September 2009

English Summary

Clinical studies of occupational solvent exposed workers. A systematic search for literature.

In Norway there is agreement on the principal criteria for diagnosing occupational solvent exposure related diseases. However, diagnostic practise is not based on a common diagnostic model. In cooperation with Norwegian institutions diagnosing occupational disease, the Norwegian National knowledge Centre for the Health Services, has performed a search for clinical studies reporting effects on longterm occupational solvent exposure. We have sorted the identified studies according to study-design, population, type of health examination, and study question. We did not summarize the results nor evaluate the quality of the studies.

- We identified seven systematic reviews published after 2000, and 253 primary studies published between 1980 and May 2008. We found that 67% of the studies were small with less than 100 exposed participants, the majority of these reported results from a non exposed control group, but there were no RCTs.
- We found that 198 studies reported on exposed workers with no a priori known diseases, 22 reported on patients with symptoms, and 33 reported on patients diagnosed with chronic toxic encephalopathy (CTE) and/or toxic poly neuropathy (TPN).
- We found that 150 of the publications reported on outcomes of neuro-psychological examinations alone, or in combination with neurological, neuro-physiological and/or neuro-pathological health examinations. 103 publications reported only on outcomes different from neuro-psychological.
- We found that 47 publications reported on diagnostic test performance, and 40 on prognosis.
- With exception of one study, we found no publications that reported on diagnostic accuracy of a particular test or procedure.

The chosen study designs, population sizes, and/or study questions provide uncertain answers to questions related to choice and outcomes of diagnostic tests. Nevertheless, selected studies may constitute a part of the evidence for choice of diagnostic procedures.