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## Asbestos disease: Recent developments in civil and criminal legal proceedings

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Several recent events in common law and non-common law jurisdictions suggest that court hearings in civil proceedings in asbestos related disease cases may be reaching an end, with causation and foreseeability issues now largely resolvable by legal presumptions. On the other hand, criminal prosecutions with severe punishments for reckless causation of death or serious disease are likely to become more widespread.

In Australia two recent High Court judgements deal with causation of mesothelioma and lung cancer by relatively low level asbestos exposures and with the interactive effect of smoking in the case of lung cancer. In England, a recent Supreme Court decision traverses similar ground.

An important major criminal and civil trial against the owners of the major European asbestos cement company Eternit has recently concluded in Turin, Italy, with significant gaol sentences being imposed and heavy damages awarded.

### Mesothelioma causation

An important new epidemiological study provides new information about the mesothelioma risk of low level (home renovation) exposure.

Olsen *et al.*<sup>1</sup> have analysed data from the Western Australian Mesothelioma Register from 1960-2008 (1631 cases) and shown a clear increasing trend in cases arising from home renovation involving asbestos containing products with a more than 40 fold increase in incidence in this group between 1980-2008. This trend had been apparent in earlier studies from the nation-wide Australian Mesothelioma Register (1980-2001) but had not previously been formally analysed.<sup>2</sup>

In the case of *AMABA v Booth; AMACA v Booth [2010] NSWDDT 8; [2010] NSWCA 344; [2011] HCA 53*, the High Court of Australia (the highest court in Australia), in deciding an appeal by AMACA against the decisions of lower courts in favour of the plaintiff, considered issues of low chrysotile exposure versus background exposure. The High Court held that all cumulative exposure in an individual case, including "background" exposure (unrecognized or unreported exposure in a case with no specific occupational or non occupational history) was relevant to causation. The court found that there was no threshold exposure for mesothelioma induction by asbestos. This finding was based on evidence as to

the biological mechanism of mesothelioma induction and the biological evidence that fibres can act at all stages of mesothelioma induction. The court also held that exposure to chrysotile only from brake linings could cause mesothelioma; that negative or inconclusive epidemiological studies in specific occupations did not negate an inference of causation in an individual exposed to asbestos in that occupation and that studies based on national incidence registers could be used to evaluate relative risk. The court also accepted the validity of studies on brake lining exposure in the Australian Mesothelioma Register showing a marked increase in risk in this group. The Olsen *et al.*<sup>1</sup> study post-dated *Booth* and subsequent cases now settle with very minimal exposure histories. Legal commentators have proposed a legislative solution for dealing with future mesothelioma cases.

In mesothelioma cases, for both causation and foreseeability issues, material in the book *Asbestos Risk Assessment, Epidemiology and Health Effects, 2<sup>nd</sup> edit.*<sup>3</sup> has been very influential. This new book is actually a goldmine of detailed, comprehensive and up to date material on all aspects of asbestos related disease, in one volume. It is particularly useful for the legal profession.

## Lung Cancer causation

In an important new study, Lentners *et al.*<sup>4</sup> have performed a new meta-analysis of lung cancer in asbestos exposed cohorts, adjusting for exposure data quality and have shown that when data quality is taken into account, the difference in potency for lung cancer between amphibole and chrysotile is significantly reduced from estimates as high as 50:1 to less than 5:1 or even as low as 1:1. In addition, the overall risk-dose coefficients for both amphibole and chrysotile are increased, i.e. there is a higher risk per unit dose.

In the case of *AMACA Pty Ltd v Ellis; The State of South Australia v Ellis; Millennium Inorganic Chemicals Ltd v Ellis [2010] HCA 5*, the High Court in deciding an appeal by AMACA against the decisions of lower courts in favour of the plaintiff considered the question of relatively low dose asbestos exposure (<10 fibre/ml-yr) in a moderate smoker with lung cancer. The High Court accepted the findings of the lower courts that there was a no threshold relationship between asbestos exposure and lung cancer induction by asbestos. The High Court decided that there was insufficient evidence presented as to the biological 'interaction' (involvement) between asbestos and tobacco smoke carcinogens and decided against a material contribution of asbestos to causation in this case. In my view the High Court judges in this case did not correctly analyse the judgements of the two lower courts (based in part on my own testimony), which had decided in favour of an asbestos contribution on the basis that tobacco and asbestos act synergistically at every exposure level in every case.

In a subsequent similar case *Lola Merle Evans v Queanbeyan City Council and Anor [2010] NSWDDT 7* in the New South Wales Dust Diseases Tribunal, detailed

evidence of the biological interaction was accepted and the High Court decision in *Ellis* above questioned by the judge (Curtis J). This evidence is summarised in

Chapter 6 of *Asbestos. Risk Assessment, Epidemiology and Health Effects*<sup>3</sup> and includes human genetic epidemiological, *in vivo* animal, and *in vitro* evidence of supra-additive effects of tobacco carcinogens and asbestos on tumour incidence, mutation frequency and genotoxicity<sup>5</sup>. The claim in *Evans* failed on technical evidentiary issues not related to asbestos-smoking interaction.

In the United Kingdom, similar issues in mesothelioma and lung cancer were considered in the case of *Sinkiewicz v Grief; Knowsley Metropolitan Borough Council v Willmore [2011] UKSC 10* by the Supreme Court (the highest court in the UK, formerly known as the House of Lords) and the concept of all cumulative exposure being relevant in both mesothelioma and lung cancer was accepted. The non necessity of a relative risk of 2 for asbestos in a smoking asbestos exposed lung cancer claimant was also accepted.

In both mesothelioma and lung cancer cases, the concept of material contribution to causation of one exposure (asbestos or smoking) among others as being sufficient to sustain a claim is accepted in both Australian and UK courts. The party who caused this exposure then bears all the liability (the principle of solidary liability). This means that plaintiff lawyers need only to identify one defendant. In a lung cancer case with both asbestos and smoking exposure, it is only necessary to show that the asbestos exposure made a material contribution. The exposure to smoking can be ignored but is often allowed for as contributory negligence which reduces the damages paid by the asbestos defendant. As courts now accept that asbestos and smoking are inseparable at a biological level, the earlier attempts at an artificial mathematical apportionment between smoking and asbestos are no longer relevant<sup>6</sup>.

The legal concept of "material" means anything not "de minimus", i.e. not so trivial that the court should not be concerned with it. This level still causes legal argument but mesothelioma cases need to show only the slightest exposure above "background"- sometimes only a few hours. Lung cancer cases need to show rather more exposure, at least 5 fibre/ml-yr depending on fibre type, smoking and lung fibrotic changes.

Courts are realising that retrospective quantitative exposure estimation is a very imprecise art, with hygienists' and engineers' estimates sometimes varying by two orders of magnitude. They are thus more likely to make qualitative judgements of exposure depending on industry type, disease in co-workers, and past experience.

The overall effect of these recent Australian and UK decisions should be to bring closer the creation of a legislative framework for dealing with asbestos related disease civil claims in common law countries, with agreed causation criteria which are much more favourable to claimants with lower exposures and which are independent of smoking history. This will bring common law countries closer to those of Europe in the handling of asbestos disease claims.

## Criminal Liability

On February 13, 2012, a billionaire Swiss industrialist and a Belgian executive were sentenced to 16 years in gaol by three judges of the court in Turin, Italy, and were ordered to pay about 350 million euros in damages for negligence that led to more than 2,000 asbestos-related deaths .

Stephan Schmidheiny, 64, former owner of the Swiss fibre cement firm Eternit, and Belgian shareholder and former executive Jean Louis Marie Ghislain de Cartier de Marchienne, 90, were found guilty of intentionally omitting to install measures to prevent health damage from asbestos at Eternit's Italian plants, which operated from 1906 to 1986 , and for causing permanent environmental disaster. These charges would be equivalent to manslaughter in common law jurisdictions.

Although previous Italian cases have resulted in gaol sentences on equivalent charges for managers at the factory level, this is the first time major company owners have been convicted. Italy is the only country to have imposed gaol sentences for negligent death (manslaughter) due to asbestos. A few gaol sentences for negligently exposing persons to asbestos either at the workplace or in the environment have been imposed by courts in the UK, France and Australia.

More than 6,000 people — including former employees and residents of the four towns where the Eternit plants were located — were seeking damages in the case. They were each awarded an average of 45,000 euros. The Italian legal system allows for civil claims to be embedded in criminal proceedings.

Prosecutors said that the lack of safety measures led to the deaths of more than 2,000 people, mostly from cancer (mesothelioma, lung cancer and other cancers) caused by asbestos exposure, and thousands of other as yet non fatal cases of asbestos related non-malignant pulmonary disease, cancer and other illnesses over the past four decades.

The diseases affected workers and residents of Casale Monferrato and Cavagnolo, two hill towns near Turin, the village of Rubiera in northern Italy, and the seaside town of Bagnoli, outside Naples. Compensation awarded by the court included 25 million euros to Casale Monferrato, 20 million euros to the Piedmont region, and 100 million euros to the victims' group Afeva.

Prosecutor Raffaele Guariniello had sought a 20-year term for both defendants. He called the case "the biggest trial in the world and in history as far as safety at work is concerned". The Italian Health Minister Renato Balduzzi called the sentence "historic", noting that asbestos was not only a local and national issue, but also an international one. The decision is likely to be appealed and the actual execution of the sentences is likely to be delayed, however, processes are in place for accelerated payment of damages. The case is likely to have widespread implications for criminal proceedings in asbestos cases throughout the world.

A detailed monograph on the case is available at <http://ibasecretariat.org/eternit-great-asbestos-trial-toc.htm>

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