

Heneghan [2016] EWCA Civ 86:

Lung Cancer, Statistics and Law

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126 L.Q.R. 351; 128 L.Q.R. 221; 129 L.Q.R. 39

[1] Was an asbestos mechanism likely involved in the victim's lung cancer?

What was the chance that a lung cancer case in the cohort of those, exposed in the way this individual victim was, resulted from a mechanism involving asbestos (either acting without tobacco or synergistically with it)?

Statistical Validity: is Question [1] one which can be validly answered by statistical comparisons (via balance of probabilities/doubling of the risk)?

Yes because there are 4 mutually exclusive mechanisms, 128 L.Q.R. 223.

The Probity Issue: are the available data reliable and relevant? Depends on the facts of the case and requires sophisticated statistical testimony.

- In *Amaca v Ellis* [2010] HCA 5, [59] there was a slight but irrelevant disagreement about the probity of the numbers, see 126 L.Q.R. at 353.
- In *Heneghan* the probity of the numbers was accepted as common ground: para [3].

Using this method, the chance that a lung cancer case in the cohort of those exposed in the way this individual victim was exposed resulted from a mechanism involving asbestos (either acting without tobacco or synergistically with it)

= 23% in *Amaca v Ellis*

= 80% in *Heneghan* – see [2014] EWHC 4190 at [14]

The Judicial Policy Issue: in relation to Question [1] should the law accept statistical comparisons, based as they are on group data, as the sole grounds for the legal determination of what actually happened in an individual's case?

- In *Heneghan* the Court held: **Yes**... see para [8].

[2] Was this defendant's breach involved in the victim's lung cancer?

Statistical Validity: is Question [2] one which can be validly answered by statistical comparisons (via balance of probabilities/doubling of the risk)?

In *Heneghan*: **No** because the aetiology of lung cancer *within* any of the 4 possible mechanisms is not known.

This led to the question whether the *Fairchild* exception can be used to leap the evidentiary gap where the outcome is lung cancer not mesothelioma.

The Probity Issue: unnecessary to decide in *Heneghan*.

The Judicial Policy Issue: should the law accept statistical comparisons to answer Question [2]? Unnecessary to decide in *Heneghan*.

		Lung cancer due to background sources mechanism
		Lung cancer due to tobacco mechanism
		Lung cancer due to asbestos mechanism
		Lung cancer due to synergistic [i.e. tobacco + asbestos] mechanism

