

Slides used to discuss relevant points for the proposed risk / control banding for asbestos

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Risk & control banding for asbestos



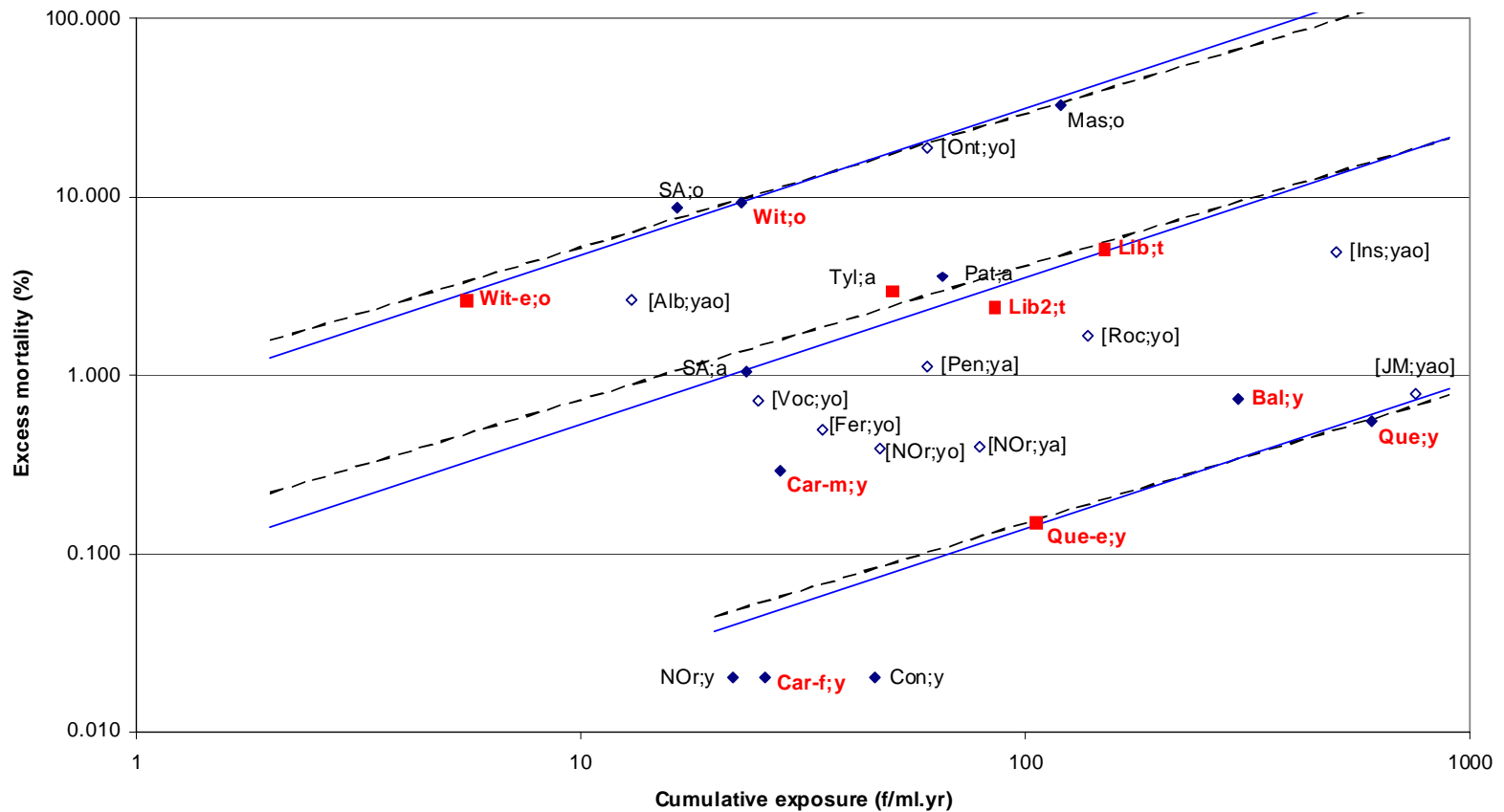
- Is a process to assign a level of risk and appropriate controls starting from the dose –response data and extrapolating downwards from this range.
- No need to define a socially acceptable levels of risk.

Extrapolation using risk bands

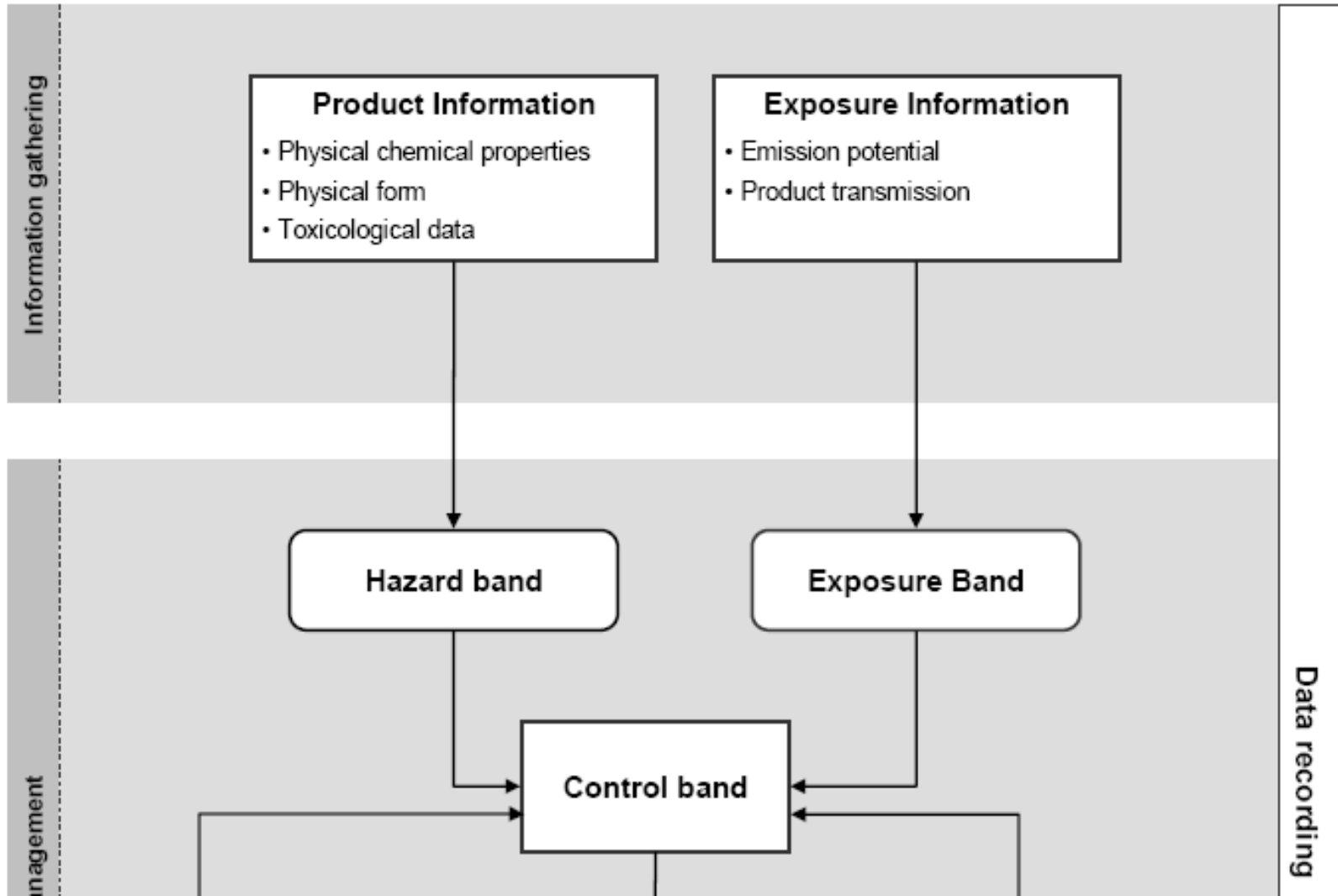
- Extrapolation by use of a banding approach was worth consideration as it:
 - reflects the uncertainty in the data;
 - takes better account of the uncertainties of extrapolating from the epidemiological data;
 - can be coupled with controls; and
 - is likely to be only one band wrong at worst.

Extrapolate from where? ~10 f.y./ml

Excess pleural mesothelioma vs cumulative exposure



Control banding approach 1



Control banding approach 2

However for asbestos:

- the hazard is known;
- exposures are reasonably well known; but
- risks are dependent on asbestos type;
- and the controls are prescribed to a large extent;

Suggested Risk/control banding approach

- Assigned order of magnitude risk bands to the “best estimate” of risk, output from the H & D model.
- Controls are applied initially on magnitude of exposure to reflect EU/UK legislation (e.g. control limit / licensing / CAR, 2005).

Risk bands for lifetime risk

Risk band	Lifetime risk (per million)	Lifetime risk 1 in ...	Control approach:
6	greater than 100,000	10 or higher	
5	10,000 to 100,000	100-10	
4	1000 to 10,000	1000-100	
3	100 to 1000	10,000-1000	
2	10 to 100	100,000-10,000	
1	less than 10	100,000 or lower	

Suggested exposures levels / to assign control bands & actions

- A. If >0.6 f/ml over 10 minute or prolonged >0.1 f/ml over 4 hours – Licensing regime controls used to prevent spread and reduce exposure by control at source etc.
- B. Short term infrequent exposure which may approach control limit – Asbestos Essentials (EM –sheets).
- C. Duty to manage approach for infrequent release.
- D. Lower exposures <0.01 f/ml focus now on duration of exposure and cumulative exposure to give control bands D, E.....(to be discussed).

Demonstration of draft model: +

- Invite WATCH to comment on:
- the risk bands and whether the best H&D estimate needs to be displayed;
- the time period and age ranges covered;
- the proposed approach to setting the control bands and the level of information given;
- placing the completed model on the HSE web site.