Induction of Bronchioloalveolar Adenomas

Table 1. Human equivalent dose (HED) and incidence rates used to model the dose-response relationship of 1,3-D induced bronchioloalveolar adenoma in mice

<table>
<thead>
<tr>
<th>Dose</th>
<th>Regressed dose (µg/kg/day)</th>
<th>Linearized dose (µg/kg/day)</th>
<th>HED (linearized dose)</th>
<th>Incidence rates (per 1000 mice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.000004</td>
<td>0.000004</td>
<td>0.000004</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

III. EXPOSURE ESTIMATION

A. Ambient lifetime modeling

- Airborne concentrations are modeled for each location and time period using ISCST3, the computational engine for MCABLE exposure modeling. Linearized dose and incidence rates are applied for a range of exposure scenarios. Inhalation is assumed to be the portal of entry.

B. Occupational lifetime exposure estimation


C. General population exposure estimation


D. Ambient lifetime and occupational risk estimation

- Risk estimation is performed for respiratory and bystander routes of exposure. Inhalation is the preferred route of entry for 1,3-D; however, dermal exposure is also considered.

E. Systemic and respiratory routes of exposure

- Respiratory route: inhalation of airborne particles
- Bystander route: skin contact with airborne particles

F. Risk estimation

- Risk is estimated using the linearized multistage cancer model (BMCS version 2.6)
- Risk is expressed as the ratio of the observed number of tumors to the expected number of tumors
- Risk is also expressed as the probability of tumor induction

G. Risk estimation for the general population

- Risk estimation is performed for both residential and occupational exposure scenarios

H. Risk estimation for the general public

- Risk estimation is performed for both residential and occupational exposure scenarios

I. Risk estimation for the general public

- Risk estimation is performed for both residential and occupational exposure scenarios

J. Risk estimation for the general public

- Risk estimation is performed for both residential and occupational exposure scenarios

K. Risk estimation for the general public

- Risk estimation is performed for both residential and occupational exposure scenarios

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S. Risk estimation for the general public

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T. Risk estimation for the general public

- Risk estimation is performed for both residential and occupational exposure scenarios

U. Risk estimation for the general public

- Risk estimation is performed for both residential and occupational exposure scenarios

V. CONCLUSIONS

- Estimated respiratory risk (per million) varies with age and smoking status

- Respiratory risk is highest for adult smokers and lowest for non-smokers

- Risk is lowest for non-smokers and highest for adult smokers

- Risk is highest for adult smokers and lowest for non-smokers

- Risk is highest for adult smokers and lowest for non-smokers

- Risk is highest for adult smokers and lowest for non-smokers