

**Table 2.7 Case-control studies of exposure to formaldehyde and cancer at other sites**

| Reference, study location, years of study  | Characteristics of cases                      | Characteristics of controls  | Exposure assessment  | Organ site (ICD code)                       | Exposure categories                             | Number of exposed cases | Odds ratio (95% CI)  | Adjustment for potential confounders   | Comments   |     |
|--|---|--|--|---|---|-------------------------|--|--|--|-----|
| Gérin et al. (1989), Canada, 1979–85       | Men aged 35–70 yrs resident in Montréal       | Pool of population selected from electoral list, and cancer controls; depending of the cancer site under study, the number of controls varied from 1733 to 2741. | Semi-structural probing interview, assessment of exposures by chemists and industrial hygienists | Oesophagus                                  | Short*  | 26                      | No association for any of these sites (most odds ratios very close to 1.0) | Selection of data-based confounders (variables according to each specific cancer), plus age, ethnic group, socio-economic status, cigarette smoking and dirtiness of job | *Short and long refer to the duration, and low, medium and high to the intensity of exposure |     |
|  |   |  |  |   | Long-low  |                         |  |  |  |     |
|  |   |  |  |   | Long-medium                                     |                         |  |  |  |     |
|  |   |  |  |   | Long-high                                       |                         |  |  |  |     |
|  |   |  |  |   | Stomach   |                         |  |  |  | 67  |
|  |   |  |  |   | Colorectum                                      |                         |  |  |  | 167 |
|  |   |  |  |   | Liver   |                         |  |  |  | 13  |
|  |   |  |  |   | Pancreas  |                         |  |  |  | 23  |
|  |   |  |  |   | Prostate  |                         |  |  |  | 127 |
|  |   |  |  |   | Bladder   |                         |  |  |  | 126 |
| Kidney                                     | 44  |  |  |   |   |                         |  |  |  |     |
| Skin melanoma                              | 22  |  |  |   |   |                         |  |  |  |     |
| Merletti et al. (1991), Italy, 1982–84     | 86 male incident cases                        | Random sample of 385 men, stratified by age, from the files of residents   | Full occupational history linked to a job-exposure matrix  | Oral cavity or oropharynx                   | Any exposure Probable or definite               | 6                       | 1.6 (0.9–2.8)<br>1.8 (0.6–5.5)   | Age, education, area of birth, tobacco smoking and alcohol drinking  |  |     |
| Goldoft et al. (1993), USA, 1979–89        | Nine cases [sex distribution not reported]    | Random-digit dialing, frequency-matched on sex and age at diagnosis (controls from Vaughan et al., 1986a, b)   | Interview  | Melanoma of the nasal cavity or nasopharynx | Living in a residence with foam insulation      | 1                       | O = 0/E = 0.28   |  | *Wood-work, furniture manufacture, pulp and paper mill, textile, foundry and melter          |     |
|  |   |  |  |   | Occupational exposure                           | 0                       | O = 0/E = 0.27   |  |  |     |
|  |   |  |  |   | Employed in industries with potential exposure* | 0                       | O = 0/E = 0.8  |  |  |     |
| Siemiatycki et al. (1994), Canada, 1979–86 | 484 men aged 35–70 years resident in Montréal | 533 population and 1879 cancer controls  | See Gérin et al. (1989)  | Bladder                                     | Non-substantial                                 | 10                      | 1.2 (0.9–1.6)  | Age, ethnicity, socioeconomic status, tobacco smoking, coffee consumption, status of respondent and other occupational exposures   | Results based on pooled controls   |     |
|  |   |  |  |   | Substantial                                     | 11                      | 0.9 (0.5–1.7)  |  |  |     |