

Working group on hygiene

Hygienic risks for laboratory animals due to employees being in touch with animals in their private life

People can be a passive vector for several infectious agents due to contact with domestic and wild animals. However, the significance of people acting as an active vector in which animal infecting agents are propagated and excreted can be neglected.

There are numerous possibilities for people getting in contact with animal infecting agents. Often there is contact with domestic, wild or zoo animals. Especially in rural areas people are close to wild rodents and their excretions but even in cities wild rats and other rodents are widely spread.

The contemporary literature is mostly about zoonotic agents and their transfer from animals to people. There are only few references on people introducing animal infecting agents of domestic or wild animals to a laboratory animal facility, however, experience reports say people can act as a passive vector for microorganisms (e.g. for pinworms and mites). Employees of laboratory animal facilities are also experiencing this risk by getting in contact with domestic animals or animals from pet shops, as these animals often carry a variety of infectious agents (e.g. murine parvovirus, murine hepatitis virus, *Helicobacter* spp., endo- and ectoparasites).

In some laboratory animal facilities, employees are obliged not to keep any animals of the same species they are taking care of at their workplace. This, however, does not solve the real problem as there are various ways of getting in contact with domestic or wild animals even if they are not kept at home (e.g. visiting neighbours or the zoo, gardening). Furthermore, it is practically impossible to check whether the many different people (animal caretakers, lab assistants, scientists, doctoral students, and trainees) who need to have access to the laboratory animal husbandry adhere to the rules.

Instead of establishing interdictions employees should be informed about the risk of pathogen transmission by getting in contact with domestic or wild animals. The risk decreases further by simple hygienic measures like hand disinfection, changing clothes and shoes, the total covering of hair and double door systems. It is also reasonable to involve domestic animals in the hygienic check of the laboratory animal facility. Many facilities further provide snake owners with food animals from their own husbandry to avoid them being in contact with microbiologically undefined animals (e.g. rodents).

In summary, according to the experiences of many different laboratory animal facilities it can be assumed that there is a risk of infectious agent introduction by employees who are in contact with domestic animals. The best way of keeping this risk under control are hygienic measures and education of all persons having access to a laboratory animal facility.

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