

Health notification system as a tool to record and identify health issues in a rodent facility

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Systematic methods to evaluate and record the clinical symptoms of laboratory animals may help to enhance their wellbeing during maintenance and experimental practices. It also allows for earlier detection of humane end points and improves the accuracy in assigning the actual severity class. Our aim was to evaluate the health issues in an animal facility caused by aging, experimental procedures, genetical status and environmental factors. We retrospectively collected data regarding the amount and category of health notifications and correlated those numbers with relative humidity (RH) and temperature (T) and the genetic status of laboratory animals as denoted GS1 (non-genetically modified = non-GM), GS2 (GM without harmful phenotype) and GS3 (GM with harmful phenotype) from two rodent facilities during 2019 and 2020. Symptoms relating to the skin (wounds/scratches/bites) were the most common (approx. 35%). The following conditions amounted to about 10% each: loss of body weight/dehydration, fur condition/appearances, eyes, posture, delivery problems and moving/tremors. In GS3 category animals only, skin symptoms remained the most prevalent (approx. 30%); however, abnormal posture, eyes, moving/tremors and breathing problems were more common for this group. Statistically significant correlation was detected between the number of health notifications and genetical status indicating that genetically altered animals have higher propensity to develop health problems, so their phenotype should be evaluated often to ensure their overall health and wellbeing.