Health Surveillance for Laboratory Animal Allergy (LAA) Guideline

Section 1 - Purpose and Scope

(1) The University of Queensland (UQ) is committed to managing work-caused allergies and their possible adverse effect on health. This Guideline supports UQ's Health, Safety and Wellness Policy, which provides UQ's commitment to the continuous improvement in the prevention of injuries, illness and incidents through an effective health and safety management system.

(2) This Guideline outlines the health surveillance processes that is in place at UQ to manage the risk of work-caused allergies to workers, students and others working in areas exposed to laboratory animal allergies (LAA) and applies to all UQ animal workers, students and others working in areas exposed to small laboratory animals.

(3) UQ is obliged under the Work Health and Safety Act 2011 to ensure that the health and safety of people are not at risk from work carried out as part of the conduct of a UQ business or undertaking. This Guideline outlines the key process for managing LAA through pre-employment requirements, monitoring information, instruction and training. Refer to Recruitment, Selection and Appointment Policy for additional information on pre-employment medicals and ongoing health surveillance. This Guideline also includes other stakeholders such as Higher Degree by Research (HDR) students or other research students depending on their role, their project and their frequency of exposure to laboratory animals.

Section 2 - Animal Allergens and Symptoms

(4) Laboratory animal allergens may precipitate a reaction (also known as hypersensitivity) in response to exposure to the animals or their environment. Allergic reactions are more likely after a substantial or repeated exposure. In animal handling units, common allergens derived from animals and insects are found in the proteins of body tissues and the excretions and secretions of most animals including urine, hair, fur, dander, saliva and serum.

(5) Symptoms of LAA may include:

a. Rhinitis (sneezing / running nose);
b. Conjunctivitis (itchy, red, watery eyes).
c. Skin rashes which may develop into:
    i. Urticaria (pink bumpy rash on the skin);
    ii. Weals on the skin around bites and scratches;
d. Asthma (tightness of the chest, coughing and wheezing).

(6) These symptoms may be present on their own or in any combination and may start at any time. It is believed that 5-25% of adult asthma cases are work related.*
* National Library of Medicine - The Management of Work-related Asthma Guidelines: a Broader Perspective

Section 3 - Risk Assessment

(7) A risk assessment of the areas where workers are interacting with animals that may increase the risk of LAA must be undertaken by the area Supervisor. The risk assessment should outline the risks to the person based on the type of work to be undertaken, the amount of time interacting with the animals, the type of animals that pose an allergen risk and as such any mitigation risk management strategies that need to be implemented to lower the risk to the lowest possible level.

Section 4 - Pre-employment / Pre-placement Health Screenings for UQ Workers that Interact with Animals

(8) The purpose of pre-employment or pre-placement health screening is to:

a. identify those people who have a pre-existing allergy to laboratory animals and for who special precautions may be necessary;
b. identify people who would be more vulnerable if they developed occupational sensitisation;
c. provide a baseline measurement for continuing periodic health surveillance; and
d. raise awareness of occupational sensitisation to laboratory animals and to provide information to individuals regarding where to seek confidential medical advice should symptoms of sensitisation develop.

UQ Workers Applying for Posts Involving Working within a Laboratory Animal Facility

(9) All prospective workers, including HDR and research students should be referred to the Occupational Health Nurse Advisor (OHNA) for pre-placement assessment. For staff, this may include a specific questionnaire, a baseline respiratory function test (RFT) and a referral to a specialist respiratory clinic for further respiratory function tests and allergy testing if appropriate.

(10) At the time of the interview or course enrolment, it must be confirmed whether the candidate has any previous history of animal allergy. In cases where the prospective employee or student will have significant contact with laboratory animals and there is an existing history of animal allergy; further medical advice should be obtained prior to placing a person with pre-existing animal allergies in such a workplace so as not to further exacerbate their condition and put them at greater risk of illness.

Section 5 - Health Surveillance

(11) The purpose of health surveillance is to ensure that control measures are effective and to provide an opportunity to reinforce specific preventive measures and safe work practices.

(12) There are three types of health surveillance:

a. Level 1. LOW: for workers who may need to enter animal areas very occasionally as visitors, or to carry out maintenance work. It will consist of a questionnaire to be completed at induction and an instruction to report any symptoms immediately to the OHNA.
b. Level 2. MEDIUM: for researchers and others who work directly, but intermittently, with animals for limited periods. This consists of a questionnaire to be completed annually and sent to the OHNA. All workers must self-monitor and any symptoms must be immediately reported to the Supervisor and the OHNA.

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c. Level 3. HIGH: For animal workers with potentially high levels or frequent exposure to animals such as animal technicians, those involved with animal husbandry or veterinarians who handle rodents regularly. It is also appropriate for other people who regularly enter and work in the animal areas and/or have an existing proven animal allergy. Health Surveillance may be undertaken at pre-employment, at three months, six months and then annually and may consist of a questionnaire, respiratory function testing (RFT) and referral to a respiratory specialist.

(13) All workers undertaking health surveillance must also self-monitor and report any new symptoms to their supervisor and OHNA to ensure possible animal allergies are investigated at the earliest opportunity.

Health Surveillance for Animal Workers

(14) Animal workers will be required to undergo Level 3 health surveillance. More frequent surveillance may be necessary if an allergy develops, and further testing may be required.

(15) Health surveillance will consist of a questionnaire, assessment of lung function and, if appropriate, a test for sensitivity to animal allergens such as a skin prick test or blood (IgE) test. Pre-placement health surveillance for animal workers employed by UQ Biological Resources may include a referral by the OHNA to a specialist respiratory function laboratory and if further investigation is required, a referral to a respiratory or immunology specialist.

(16) UQ reserve the right to require a medical assessment of any person who, in the opinion of management, is showing signs of allergy or any other significant medical problem which seems to be related to, or significantly aggravated by, the working environment.

Health Surveillance for Researchers and Postgraduate Students

(17) For most researchers and postgraduate students, Level 2 health surveillance will be undertaken except where there is evidence of existing animal allergy, or a specific high-risk environment where Level 3 may be appropriate.

Section 6 - Information, Instruction and Training

(18) All workers must be given an indication of their expected contact with laboratory animals.

a. All animal workers must be educated about animal allergies and steps for risk reduction. They must be informed of UQ’s policies including, where appropriate, the requirements for health surveillance and medical examinations as part of their contractual commitment.
b. All animal workers must be given suitable training for their tasks and additional training will be given to those working directly in contact with laboratory animals concerning ways of minimising exposure to animal allergens and other risks.
c. The role of cigarette smoking is unclear for asthma due to exposure to laboratory animals. All smokers are however, strongly encouraged to stop smoking as part of a general health promotion measure.

Section 7 - Workers with Suspected Animal Allergy

(19) Animal allergy may be suspected as a result of the worker reporting symptoms or signs of allergy, either spontaneously or at routine health surveillance.

(20) Animal allergy will be confirmed by the history, medical examination and investigations including blood (IgE) or skin tests as appropriate.

(21) Where work-related asthma is suspected, the worker will be referred for specialist investigation and further

testing as appropriate.

(22) An incident report with details and current controls must be completed on UQSafe.

Section 8 - Management of Established Cases

(23) In all cases where symptoms are reported or suspected, the worker will be referred to the OHNA for review. Subsequent action will be taken by workplace management after medical recommendations are received.

(24) Medical recommendations may include:

a. Further investigation to define the nature and severity of the person's condition and treatment if appropriate.
b. Increasing the frequency of medical surveillance to ensure the condition does not worsen and to ensure the condition is managed appropriately.

(25) Workplace remedial action may include:

a. Limiting the exposure using the hierarchy of control risk reduction process. An Occupational Hygiene Advisor may need to be consulted for advice.
b. Options for controlling risk may include removing the worker from the area, reducing the amount of airborne allergen through engineering controls, modifying work practices, job or task rotation initiatives and reviewing personal respiratory protection equipment to enhance comfort and practicability for the worker.

Section 9 - Roles, Responsibilities and Accountabilities

Heads of Organisational Unit/Heads of School, Lab Manager or Chief Investigator

(26) Ensuring that laboratories with animals are highlighted as areas that may require potential workers to have pre-employment conditions added to contracts, position descriptions and in recruitment activities. Notification to staff and others that compliance with health surveillance including medical assessment, if indicated is a job requirement. This requirement needs to be included in the OHS section of the job description.

(27) Ensuring that Supervisors provide workers with sufficient information, instruction and supervision to enable them to work safely.

(28) Ensuring that resources, including budgetary funds, are available for pre-employment screening and ongoing health monitoring.

Supervisors

(29) Performing risk assessments in UQSafe that look at the risk of LAA and asthma in the workplace.

(30) Ensuring that the hierarchy of controls is used to minimise the risk of LAA to workers in the area.

(31) Identifying research personnel and students requiring health surveillance as part of the risk assessment.

(32) Ensuring that workers and others are provided with appropriate PPE that is maintained, or replaced regularly. All users must receive advice and training in the use and selection of PPE and regular checks must be undertaken to ensure that it is worn correctly.

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(33) Notifying the OHNA of persons requiring health surveillance.

(34) Implementing any work restrictions resulting from health surveillance.

(35) Observing staff for any symptoms and ensuring questions regarding these are discussed with workers.

(36) Ensuring that procedures to evacuate staff from animal houses are mandatory if electrically powered ventilations systems fail, that is, unless there are back-up generators that power the ventilation systems and the back-up generators will immediately be switched on during a power outage. Remaining in an animal facility without ventilation creates a substantially increased risk of allergen exposure.

Occupational Health Nurse Advisor

(37) Carrying out routine health surveillance and referring onto Occupational Physician or respiratory specialist where appropriate.

(38) Advising and reviewing controls of workers that become symptomatic in the workplace.

(39) Investigation and referral of persons showing evidence of animal allergy.

(40) Maintaining health surveillance database, including recalls and storing any medical documents on appropriate secure UQ record repository.

(41) Providing the management of the Organisational Unit with feedback about the implications of the results of health surveillance for the worker and the workplace (e.g. recommending a higher protective level of PPE be used or redeployment of a symptomatic worker).

(42) Pre-placement screening of workers to identify individuals with increased risk of developing occupational asthma.

Health, Safety and Wellness Division

(43) The Health, Safety and Wellness Division (HSW Division) will be responsible for liaison with Workplace Health and Safety Queensland (WorkSafe Queensland) including the official reporting of occupational illness.

(44) The HSW Division can also provide advice on the management of occupational risks through specialist advisors such as Occupational Hygienists and OHNA.

Workers and Others

(45) Workers and others are required to follow the requirements for health surveillance or health monitoring where this has been established due to their role at UQ. They must also report any symptoms that are consistent with LAA to their Supervisors immediately so that action can be taken to protect them from long term effects.

Section 10 - Monitoring, Review and Assurance

(46) Ongoing monitoring of workers working in laboratory environments that house animals will be undertaken depending on their health surveillance risk level as outlined in section 5. advising any workers that become symptomatic and reviewing the current controls in the workplace.

(47) Referral of people to the occupational physician or respiratory specialist and following up on recommendations and ensuring recommendations carried out.

(48) Information regarding the worker, any respiratory issues and recall dates will be on OHNA health surveillance database.

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(49) Spirometry and specialist results will be saved and stored on an appropriate secure UQ record repository.

(50) Reports of ongoing allergies will be maintained by the OHNA and key stakeholders involved where required

(51) The HSW Division will review this Guideline on a regular basis and ensure that any updates are applied.

Section 11 - Appendix

Definitions

Term	Definition
Allergen	A substance capable of producing an allergic reaction.
Asthma	Asthma is chronic inflammation of the airways characterized by widespread airflow limitation that is reversible, either spontaneously or with treatment over short periods of time. This inflammation results in hyper responsiveness of the airways to stimuli such as cold air, cigarette smoke and exercise resulting in symptoms including wheeze, cough, shortness of breath and chest tightness. These symptoms are often worse at night or in the early morning.
Work-related Asthma	Asthma is “work-related” when there is an association between symptoms and work. Work-related asthma includes two distinct categories:
Occupational Asthma	Adult asthma caused by workplace exposure and not by factors outside of the workplace. Occupational asthma can occur in workers with or without prior asthma. Occupational asthma is unique in that it is the only type of asthma that is readily preventable. Prevention depends on the effective control of exposure to respiratory sensitisers in the workplace.
Work Aggravated Asthma	Pre-existing or coincidental new onset adult asthma which is made worse by non-specific factors in the workplace.
Risk Assessment	The assessment of the risk of LAA / occupational asthma is carried out in accordance with the How to Manage Work Health and Safety Risks - Code of Practice 2021, the Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011. Risk assessments are recorded on the UQ Risk Assessment Database. A risk assessment will help to identify those for whom health surveillance is required.
Sensitisation	The process of becoming hypersensitive (or allergic) to a substance (allergen.).
UQ Animal Worker	All persons (including staff, researchers and students) identified in the risk assessment as requiring health surveillance for work with small laboratory animals, insects and birds.
UQ Animal Worker	All persons (including staff, researchers and students) identified in the risk assessment as requiring health surveillance for work with small laboratory animals, insects and birds. For the purposes of this Guideline, this includes: - staff - includes an employee of UQ employed on a continuing, fixed-term or casual basis; - students - includes undergraduate, postgraduate, masters, Higher Degree by Research (HDR), coursework, and students undertaking work experience; - visiting academics and researchers; - affiliates - academic title-holders, visiting academics, Emeritus Professors, adjunct and honorary title-holders, Industry Fellows and conjoint appointments; - volunteers - members of the community who donate their services in a voluntary capacity to UQ without expectation of remuneration; and - Others include - contractors, subcontractors and consultants.

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