| **LIST THE WORK TASKS** | **HAZARDS** | **RISK** | **PERSONS AFFECTED** | **INITIAL RISK RATING**  **(before controls/action plan in place)** | **Control Measures/Action Plan** | **RESIDUAL RISK RATING (after controls in place)** | **PERSONS RESPONSIBLE**  **(for implementing control measures)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Pipetting task** | Posture - seating, standing set up at bench | Musculoskeletal discomfort – neck, back, shoulders. | Lab staff / researchers | |  |  |  | | --- | --- | --- | | **5** | **3** | **15** | | Sit / Stand at a cut out open space under a lab bench.  Consider an anti-fatigue mat if standing for long periods.  Lab chair:   * Adjust to a suitable height – arms to be rested comfortably on bench. * Adjust back of chair to provide sufficient lumbar support. * Ensure to move chair in a far as you can so that you are sitting upright in the chair and not slouching forward.   When pipetting, stay within comfort zone – keep pipette movement between waist and shoulder and keep hand relaxed – avoid tight grip. | |  |  |  | | --- | --- | --- | | 2 | 3 | 6 | | Person pipetting and Supervisor. |
| **Pipetting task** | Bench set-up | Musculoskeletal discomfort – neck, shoulders, hand. | Lab staff / researchers | |  |  |  | | --- | --- | --- | | 4 | 3 | 12 | | Keep regularly used items and equipment close, at suitable heights and angles – within arm’s length, easy to reach and grab, to avoid stretching or twisting the body.  Using shorter length pipette tubes and tips can help as well a turntables to place equipment for easy reach. | |  |  |  | | --- | --- | --- | | 2 | 3 | 6 | | Person pipetting and Supervisor. |
| **Pipetting task** | Pipette selection & maintenance | Musculoskeletal discomfort – neck shoulders, hand. | Lab staff / researchers | |  |  |  | | --- | --- | --- | | **3** | **3** | **9** | | Always select / match the correct pipette tool for the task. Consider the following:   * Type (single channel, multichannel, electronic etc.) * Size & shape for your hand * Lightweight * Fingers hooks can help * Ejection of tip –low force * Limited extension of thumb when operating pipette.   Consider multi pipetting and electronic pipetting for increase productivity and can save time and effort.  Keep pipette clean and in good repair. Check maintenance programme required. | |  |  |  | | --- | --- | --- | | 2 | 3 | 6 | | Person pipetting and Supervisor. |
| **Pipetting task** | Pipetting for long periods of time | Musculoskeletal discomfort – neck, shoulders, hands, back. | Lab staff / researchers | |  |  |  | | --- | --- | --- | | 3 | 3 | 9 | | For every 20mins of pipetting, take a 5min break.  During the 5 min break and when finished pipetting for the day, [carry out hand, arm, back and shoulder stretching exercises](https://www.youtube.com/watch?v=m7NiDDSM7OY).  Consider job rotation with a colleague. Work out a daily roster between you. This will help reduce the amount of time you are pipetting. | |  |  |  | | --- | --- | --- | | 2 | 3 | 6 | | Person pipetting and Supervisor. |

**Risk Ratings**

**LIKELIHOOD CATEGORIES**

|  |  |
| --- | --- |
| **Category** | **Definition** |
| **1** | **Practically Impossible** |
| **2** | **Not Likely** |
| **3** | **Possible** |
| **4** | **Likely** |
| **5** | **Very Likely** |

|  |  |
| --- | --- |
| **Category** | **Definitions** |
| **1** | **First Aid, Near Miss** |
| **2** | **Lost Time Accident (LTA) off work for 1 Day and / or Medical (GP, Hosp treatment) Treatment** |
| **3** | **LTA off work 3 consecutive days (incl weekend) - Reportable to HSA – or a Dangerous**  **Occurrence – see list in appendix 1** [**here**](http://www.hsa.ie/eng/Publications_and_Forms/Publications/Safety_and_Health_Management/Accident_and_Dangerous_Occurrences_Reporting.pdf) |
| **4** | **Single Fatality** |
| **5** | **Multiple Fatality** |

**CONSEQUENCE CATEGORIES**

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**Risk Rating Matrix**