**A Quality Analysis of Valerian Products Available in Australian Pharmacy**

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**Background.** *Valeriana officinalis L.* (Valerian) is a Western herbal medicine commonly used to manage insomnia. The sedative properties of Valerian are primarily attributed to its bioactive constituents, valerenic acids. In Australia, *V. officinalis L.* is a permissible herbal ingredient, with products containing it regulated under a low-risk medicines framework. Despite its widespread use, there is limited research on the quality of herbal products in the post-market stage. Therefore, this study aims to evaluate the quality of the most commonly available valerian products in Australian pharmacies.

**Methods.** Five different valerian products were selected from pharmacies in Sydney, Australia. Product labels were evaluated for information on dosage, valerenic acids content and warnings. Uniformity of weight, presence and quantification of valerenic acids were performed using thin layer chromatography (TLC) and high-performance liquid chromatography (HPLC) in accordance with the United States Pharmacopoeia. Heavy metal and microbiological analysis were conducted in accordance with the British Pharmacopoeia to analyse the safety aspects of these products.

**Results.** The total daily dose of *V.* *officinalis* dry root extract ranged between 400-1000 mg. All products demonstrated uniformity of weight. The TLC profile for all products demonstrated the presence of valerenic acid, acetoxyvalerenic acid and hydroxyvalerenic acid*.* HPLC results quantified the valerenic acid content, revealing a daily dose ranging from 8.58 mg to 29.02 mg. The measured valerenic acid content was significantly higher than the manufacturer's reported values, with discrepancies ranging from 41% to 371%. All products analysed in this study demonstrated a heavy meatal and microbiological content within the permissible limit by the United States Pharmacopoeia and British Pharmacopoeia.

**Conclusion/Discussion.** There was a high variation in valerenic acid content amongst the products analysed, which may contribute to important clinical implications. All valerian products analysed demonstrated a safe heavy metal and microbiological profile.