

TITLE: Microbiological profile of medicinal plants alumã (*Vernonia condensata*), lemon grass (*Cymbopogon citratus*), carqueja (*Baccharis trimera*), turmeric (*Curcuma longa*) and guaco (*Mikania glomerata*) in Rio de Janeiro from 2017 to 2019

AUTHORS: NASCIMENTO, S.R.S.P; CARMO, J.S .; JESUS, P.R .; EVANGELISTA, M .; FERREIRA, J.A.B.

INSTITUTION: National Institute of Quality Control in Health (INCQS-FIOCRUZ), Rio de Janeiro, RJ (Av. Brasil, 4365 - Manguinhos, CEP: 21.040-900, Rio de Janeiro - RJ - Brazil)

ABSTRACT

Medicinal plants have been used since antiquity to treat various diseases. In Brazil the use of medicinal plants as a therapeutic form occurred through the assimilation of indigenous knowledge and the contribution of culture brought by slaves and immigrants. The regulation of herbal medicines is carried out by ANVISA, which establishes that any herbal medicine must be registered before commercialization, so that the population has access to safe, effective and of proven quality medicines. This study aimed to trace the microbiological profile of samples of medicinal plants offered to users of the Unified Health System (SUS). The samples were from farmers in the State of Rio de Janeiro. For each sample the total number of aerobic bacteria, molds and yeasts was determined; Gram-negative bile tolerant bacteria and pathogen research, according to methodology recommended by the Brazilian Pharmacopoeia 5th edition, supplement 2/2017. The analyzes were carried out from 2017 to 2019. In the analyzed samples, 88% were outside the limits recommended by the Pharmacopoeia, 25% of molds and yeasts and 75% with a high number of aerobic and bile tolerant bacteria with *Bacillus subtilis*, *Bacillus brevis*, *Bacillus cereus*, *Bacillus circulans*, *Enterobacter cloacae*, *Enterobacter gergoviae*, *Pantoea agglomerans*, *Serratia entomophila*, *Serratia marcescens*, *Escherichia coli*, *Klebsiella oxytoca*, *Cronobacter sakazakii*, *Citrobacter freundii*, *Candida albicans*, *Aspergillus flavus* and *Aspergillus parasiticus*. The aim of this study is to demonstrate that the inclusion of microbiological evaluation in the monitoring of the quality of medicinal plants used by SUS is of fundamental importance, subsidizing interventions on health risks and certification of raw materials, thus ensuring the quality of the product to be offered for the population.

Key words: Medicinal plants. Phytotherapeutic. Microbiological monitoring.

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