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13.001 Use of metered dose inhaler with spacer is deficient in pharmacy trainees in State of Goiás-Brazil. Araújo AD¹, Silva TDF¹, Nunes JO², Costa LG², Clemente LC¹, Abreu LB¹, Castro PFS¹ - ¹UEG – Campus Itumbiara, ²Univereso-Goiânia

Introduction: Knowledge about the use of metered dose inhaler (MDI) with spacer among health graduate trainees is important for the treatment of obstructive pulmonary diseases such as asthma. **Objectives:** To evaluate the practical and theoretical knowledge of pharmacy undergraduate trainees on the use of MDI with spacer.

Methods: This study is observational cross-sectional. Practical and written testes on the use of MDI with spacer were applied to pharmacy undergraduate trainees at two university in state of Goiás-Brazil by standardized issues. Questions with higher an lower correct values were identified. Statistical analyses were performed using GraphPad Prism version 5.0. Comparisons among groups were performed using Student's t test and values of $P < 0.05$ were considered to be significant. **Results:** A total of 42 students were assessed, 23 trainees were from the university located in the State interior and 19 trainees were from university located in Goiânia, State capital. Students from the interior and the capital erred in the theoretical questionnaire the time between 2 puffs (86.9% vs 94.8%, $p < 0.05$ respectively). Interior students did not know to clear MDI and either to use MDI in baby (both 78.2%). Capital students did not know of the inspiratory pause time of 10s (73.7%) and either to use spacer (68.5%). On practical test, both students' group did not know to shake inhaler (interior 95.6% vs capital 94.7%), neither to couple spacer to inhaler (interior 78.2% vs capital 63.1%, $p < 0.05$) **Conclusion:** Error rate was high on essential steps of using MDI. This highlights the need to improve the teaching of inhalers in the Goiás university. These errors suggest worse therapeutic response to the treatment. **Keywords:** Administration by Inhalation; Inhalation Spacers; Asthma; Health education. **License number of ethics committee:** 68241417.6.0000.8113. **Financial support:** FAPEG e UEG