A QI to improve residents’ knowledge and awareness of utilization of MDI spacer device in asthma management

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In the management of asthma exacerbation, studies have shown that short acting beta agonists (SABA) via metered dose inhaler with spacer (MDI S) is as or more effective than SABA via nebulizer. Using MDIS in asthma exacerbation is associated with better outcomes and decreased hospital length of stay. The largest barriers to MDIS implementation include concerns about safety and costs, providing spacers and parental desire for nebulizers. Our QI objective was to educate residents about MDIS to improve knowledge and confidence in teaching and demonstrating techniques of use. A Pre and post-intervention self assessment surveys using a scale from 1-5 was to evaluate residents in various aspects related to MDIS. Interventions consisted of video demonstrations, a live pediatric allergist demonstration and discussion regarding how to approach patients new to MDIS. Unpaired T test was used to compare survey results. There was significant improvement in all evaluated aspects. Greater improvement was noticed in knowledge of using MDIS, maintaining MDIS and awareness of economic convenience of MDIS followed by comfort in demonstrating MDIS. In this project we successfully improved residents’ knowledge and enhanced their confidence in teaching and demonstrating techniques of use.

Biography

Khalid Al Katranji is in his last year training in Pediatric Medicine at Joan C Edwards School of Medicine at Marshall University. He completed his medical degree at University of Alexandria, Egypt and was a Research Assistant at Robert H Lurie comprehensive cancer center of Northwestern University where he was involved in breast cancer research before starting his pediatric training at Marshall.

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