

# ORAL PRESENTATIONS

## ADRENAL

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#### THE IMPACT OF STANDARDIZED PATIENT EDUCATION ON THE HEALTH-RELATED QUALITY OF LIFE AND KNOWLEDGE IN PATIENTS WITH ADRENAL INSUFFICIENCY

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#### INTRODUCTION

Despite adequate glucocorticoid replacement, patients with adrenal insufficiency suffer from poor health-related quality of life (HRQOL) and have an increased risk of mortality. Patient education is an important measure to prevent adrenal crises and may also improve quality of life. Nevertheless, in Malaysia, patient education on adrenal insufficiency is often variable and confined to repeated oral instructions. As structured standardized patient education and written instructions have been shown to enhance knowledge transfer, we have produced educational materials in local languages for our patients.

#### METHODOLOGY

A prospective questionnaire-based single-center study evaluating the impact of standardized educational materials on the knowledge and HRQOL of patients with adrenal insufficiency. At baseline, HRQOL is examined using Short Form-36 version 2 (SF-36v2), and knowledge of adrenal insufficiency is assessed by a questionnaire designed by the authors. Education materials and steroid cards are then introduced. Three months later, participants were reassessed with the same questionnaires. Changes in the Physical Component Summary (PCS) and Mental Component Summary (MCS) scores of the SF-36v2 as well as changes in the total score obtained on the knowledge assessment questionnaires are then analyzed.

#### RESULTS

One hundred ten patients (Primary adrenal insufficiency,  $n = 13$  and secondary adrenal insufficiency,  $n = 97$ ) were recruited. Most ( $n = 89$ , 81%) had opted for Malay or Chinese education materials. After the intervention, the participants' median knowledge scores (25<sup>th</sup>/75<sup>th</sup> percentiles) improved from 5 (4/7) to 10 (9/11) ( $p < 0.001$ ), from a maximum score of 12. Poor baseline scores were seen in those who were older ( $>55$  years), had lower education levels, secondary adrenal insufficiency, and shorter disease duration (55 years), but still performed worse compared to their younger counterparts.

After standardized education, the median score (25<sup>th</sup>/75<sup>th</sup> percentiles) of PCS recorded an improvement from 46.78 (40.40/51.87) to 47.87 (42.94/51.32) ( $p < 0.001$ ). MCS score improvement from 45.15 (40.39/49.84) to 46.10 (42.93/48.71) was not statistically significant ( $p = 0.148$ ). Both PCS and MCS were poorer than the Malaysian age and gender-matched general population even after standardized education ( $p < 0.001$ ).

#### CONCLUSION

In conclusion, our current education strategy of repeated oral instructions during clinic visits is grossly inadequate for effective knowledge transfer. Patients with adrenal insufficiency still suffer from poor quality of life despite adequate glucocorticoid replacement. This prospective study has demonstrated the positive impact of standardized patient education and written instructions on patients' knowledge and HRQOL. The availability of educational materials in local languages has a huge role in improving our patient's care and self-management. They are easily administered and have the potential for undemanding widespread implementation throughout the country.

#### KEYWORDS

adrenal insufficiency, standardized patient education, quality of life, knowledge