

**HYDRATION STATUS OF 2017 MALAYSIAN  
AGONG CUP RUGBY REFEREES**

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**Research Project Report submitted in partial fulfillment  
of the requirements for Bachelor of Sports Science (Hons.)**

**Faculty of Sports Science and Recreation**

**2018**

**DECLARATION OF ORIGINAL WORK**  
**BACHELOR OF SPORT SCIENCE AND RECREATION**  
**UNIVERSITI TEKNOLOGI MALAYSIA**


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Hereby, declare that:

This work is not previously been accepted in substance for any degree, locally or overseas and is not being concurrently for this degree or any other degrees.

This research project was the best result of my independent work and investigation, except, where otherwise states. I absolve Universiti Teknologi MARA (UiTM) and it is Faculty of Sport Science and Recreation from any blame because of my work.

All verbatim extract is been distinguished by quotation marks and sources of my information have been specially acknowledgement.

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## ABSTRACT

The purpose of this study was to determine the hydration status of 2017 Malaysian Agong Cup rugby referees based on parameters set which are bodyweight changes, urine specific gravity (uSG), urine pH value (uPH), and urine colour pre and post-match as well as the sweat rates data post-match. There were six (N=6) referees partaken in this study. Bodyweight changes, uSG, uPH and urine colour were measured before and after each match took place whereas sweat rates was calculated after each match. (Mean  $\pm$  SD) of pre-match bodyweight changes, uSG, uPH and urine colour were (71.35 kg  $\pm$  3.95), (1.015  $\pm$  .00), (5.67  $\pm$  1.03) and (6  $\pm$  1.84) respectively. (Mean  $\pm$  SD) of post-match bodyweight changes, uSG, uPH, urine colour and sweat rates were (69.65kg  $\pm$  3.63), (1.016  $\pm$  .01), (4.83  $\pm$  .41), (6  $\pm$  2.79) and (1.86 L  $\pm$  .90) respectively. Results from paired sample tests of bodyweight changes and uSG data showed significant differences in between pre and post-match whereas uPH and urine colour data showed no significant differences in between pre and post-match. To conclude, from mean data of bodyweight changes showed 2.38% of decrement in bodyweight changes, whereas for uSG, uPH and urine colour mean data showed that the referees started the match with minimal dehydration based on the scale of each parameters and the sweat rates data showed that referees should at least replenish 1.86L of fluid after match to level out the fluid loss during the match.

**Keywords:** Hydration status, bodyweight changes, urine specific gravity, urine PH, urine colour, sweat rates, rugby referees.

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