Poster Presentation

Cancer

0460

SMOKING ADJUSTED OCCUPATIONAL RISK OF BLADDER CANCER USING PROXY SMOKING FROM LUNG CANCER IN NORDIC MALES

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Oral Presentation

Intervention Studies

0461

CAN A WATER.REST.SHADE INTERVENTION REDUCE THE RISK OF CHRONIC KIDNEY DISEASE AMONG SUGARCANE WORKERS?

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Background The Central American kidney disease epidemic persists despite efforts to identify cause(s) and introduce clear, evidence-based interventions to protect workers. Evidence suggests that chronic dehydration during heavy work in hot environments contributes to morbidity. An intervention was introduced to determine if risk could be reduced in sugarcane workers.

Objective To assess efforts to implement a Water.Rest.Shade intervention in one setting where sugarcane cutting was believed to increase CKDu in the workforce.

Methods The intervention was introduced mid-way through the harvest in one of two work groups. The intervention group received water throughout the day with scheduled rest breaks in shaded settings. Health data (anthropometric and questionnaires), blood and urine were collected four times over a six-month harvest. Daily wet bulb globe temperatures (WBGT) were recorded.

Results There were significant changes in biomarkers across-shift and across-harvest that reduced the markers of dehydration (changes of urine osmolality and serum albumin) and reduced rate of loss in estimated glomerular filtration rate (eGFR). Cross-shift change in eGFR was reduced in the group receiving the intervention. Significant decreased eGFR over the harvest appeared to stop after the intervention in those receiving the Water.Rest.Shade program.

Conclusion Preliminary evidence indicates a Water.Rest.Shade intervention program reduces the impact of heat stress on acute and over-harvest biomarkers of kidney function. Potential long-term benefits of such an intervention need to be confirmed in long-term follow-up and in other settings. Further research is needed to determine whether biomarker changes predict reduced risk of CKDu in this type of work.