

The Feel in PPE: “Sous le Sunlight des Tropiques!”

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Dear Sir,

Personal Protective Equipment (PPE) is now being used daily by all healthcare workers (HCWs). Since the start COVID-19 pandemic, guidelines and training were provided about donning (putting on) and doffing (taking off) of PPE. At the Mater Misericordiae University hospital, the COVID-19 medical team on call has been experiencing symptoms and signs of dehydration during their shifts.

We surveyed 40 Non-Consultant Hospital Doctors (NCHDs) at the Mater Misericordiae University hospital who were on call and asked them whether they experienced symptoms and signs of dehydration during their 12-hour shift. Out of the 40 questionnaires sent between March and June 2020, 32 (80%) responded. Out of the 32 who responded, 19(59.38%) were female and 13(40.62%) were male. 3(9.38%) were aged between 18 and 24 years, 27(84.38%) were aged between 25 to 34 years and 2(6.25%) were aged between 35 to 44 years. 32(100%) complained of sweating, 21(67.74%) complained of fatigue, 26(83.87%) complained of thirst, 2(6.45%) complained of muscle cramps, 7(22.58%) complained of dizziness, 18(58.06%) complained of headache, 1(3.23%) fainted and 10(32.26) had increased body temperature. Between donning and doffing, 10(31.25%) stayed in PPE for over 2 hours and 22(68.75%) doctors stayed less than 2 hours in PPE on average during their shift. On average 28 out the 32 NCHDs took less than 1L of fluid during their busy on call shift.

Normal adults are considered to have a minimal obligatory water intake or generation of approximately 1600 mL per day, are composed of ingested water (500 mL), water in food (800 mL) and water from oxidation (300 mL). On the other hand, the sources of obligatory water output in normal adults are composed of urine (500 mL), skin (500 mL), respiratory tract (400 mL) and Stool (200 mL).¹

Although sweat production is low in the basal state, it can exceed 1 to 2 L/h in a subject working in a hot environment.² During a busy medical on call, it is crucial that our NCHDs are adequately hydrated to ensure them doing their job properly. One of the main problems identified was that because of their heavy workload, they always postponed the idea of getting a glass of water because the water dispenser was not nearby.

The Royal College of Physician of Ireland is putting lots of emphasis on the well-being of NCHDs during this COVID-19 crisis.³ The problem of dehydration among NCHDs wearing PPE could have been properly addressed if there was adequate communication between the management and NCHDs.

NCHDs among many other HCWs coping with the pandemic have been working round the clock. The emergence and rapid spread of SARS-CoV-2 still represents a major threat. Reflecting on our findings, we concluded that systems must be placed for effective and coordinated communication that supports the delivery of continuous and safe care of NCHDs to optimise a better clinical governance.

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