

Long heat waves boost hospital admissions

Summer heat waves significantly increase pressure on hospitals, according to research published in the online open access journal, BMC Public Health. The good news for hospital staff is that scorching weather must last four or more days before admissions rise significantly.

Giuseppe Mastrangelo and his team from the University of Padova, Italy, examined hospital discharge records for patients aged 75 or over during five heat waves which hit the Veneto Region in Northeast Italy between 2002 and 2003. They found that for each additional day of heat wave duration hospital admissions for disorders of fluid and electrolyte balance, acute renal failure, and heat stroke rose by 16 percent, and breathing disorders by five percent. Individual hot days cause fewer problems, suggesting that people can recover during cooler breaks in the weather.

Usually the first heat wave of the summer is considered the most deadly, however the team found that hospital admissions peaked during both the first and last heat waves of the year. This suggested that physiologic adaptations to the heat or behavioural changes following initial exposure to high temperatures did not prevent people from falling ill. Hospitals should not expect heat-related admissions to decrease as the summer progresses.

The results support previous studies linking heat waves with increased death rates, especially amongst the elderly. However this is the first investigation into whether heat wave intensity and duration have any effects on general health. Many heat-related diseases may be preventable with adequate warning and an appropriate response to predicted heat waves, the authors conclude.

"These results have important implications upon ongoing efforts to forecast health-related impacts in the heat watch/warning systems," says Mastrangelo. "The first part of a heat wave having only minor effects supports heat health systems where alerts are based on duration of hot humid days."

Source: BioMed Central

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