

# Leptospirosis - On the Increase Due to Global Warming

Sir

We read with interest Elizabeth Cullens editorial *Leptospirosis and Climate Change*. Interestingly leptospirosis is becoming increasingly prevalent in temperate climates such as Ireland due to global warming. Leptospirosis is a febrile illness caused by infection with the spirochete *Leptospira interrogans*. Although endemic in tropical climates it is increasing in temperate climates. There were six confirmed cases of leptospirosis in Dublin, Ireland in November 2001. All were associated with canoeing on a particular stretch of the river Liffey. Four of the six cases required hospitalisation but all recovered. Other outbreaks in European temperate climates have been reported including an epidemic in German strawberry harvesters in 2007. The HSPC reports incidence of leptospirosis 14 cases in Ireland in 2004, steadily increasing with 25 cases in 2009. All are laboratory confirmed cases and the true incidence may in fact be higher.

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Clinical manifestations of Leptospirosis vary between mild symptoms (anicteric Leptospirosis, about 95% of cases) to potentially life threatening illness (icteric leptospirosis or Weils disease). Indeed we had one case of Weils disease in our institute in 2009 in a previously healthy 27 year old who required ICU management of respiratory and renal compromise. The emergence of massive haemoptysis and acute respiratory distress syndrome has characterized the recent changes reported in the clinical patterns of leptospirosis and has emerged as a serious life threat, becoming the main cause of death due to leptospirosis in some countries. Animals are more frequently affected by the spirochete *Leptospira* with humans accidental hosts. Humans most often become infected after exposure to environmental sources, such as animal urine, contaminated water or soil, or infected animal tissue. *Leptospira* can infect humans via breaks on the skin, conjunctiva or mucous membranes. Risk factors are mainly outdoor exposure to animal urine during recreational exposure such as canoeing, fresh water swimming or surfing. Those with occupation exposure such as farmers, sewer workers and abattoir workers are also at increased risk.

As in lyme disease promotion of health education and emphasise the importance of reducing opportunities for exposure to this disease may also help decrease incidence of this potentially serious disease.

C Rock, M Horgan  
Department of Infectious Diseases, Cork University Hospital, Wilton,  
Cork  
Email: [Clarerock@physicians.ie](mailto:Clarerock@physicians.ie)

## References

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