**P1-466** EFFECTS OF OUTDOOR TEMPERATURE AND RAIN ON THE RISK OF HEMORRHAGIC STROKE

*doi:10.1136/jech.2011.142976g.55*

**Introduction** Changes in meteorological parameters have been associated with stroke occurrence. The incidence of primary intracerebral haemorrhages (PICH) seems to increase in days with cold/mild outdoor temperature. In Portugal, neurologists forward the hypothesis that the incidence of PICH increases in rainy days and not particularly low temperatures. This study aims to study the association between occurrence of PICH and weather parameters.

**Methods** Data from ACINrpc-project, involving 78 patients suffering a first-ever-in-the-lifetime PICH over a 2-year period in the city of Porto was used. Information on daily weather parameters was obtained from the National Meteorological Office. A Poisson model was used to estimate the association between weather parameters and PICH incidence. Using a conditional logistic regression model, a case-crossover design was then used to estimate the risk of PICH following specific exposures associated with PICH incidence: low diurnal temperature range (DTR) and rainy days. For each subject, the case period was matched with 4 control periods, the same weekday in the previous 4 weeks.

**Results** PICH incidence increases by 11.8% (95% CI 3.8 to 20.4%) for 1°C drop in DTR and 3.1% (95% CI 1.1 to 5.1%) for a 1 mm/m² in precipitation. Following a day with a DTR<4°C the OR is 2.9 (95% CI 1.4 to 5.8), increasing to 8.8 (95% CI 1.7 to 44.8) after a 48 h exposure. Following days with low DTR and rain, the OR is 5.2 (95% CI 1.3 to 8.1) and 9.5 (95% CI 1.1 to 88.9) for a precipitation>10 mm/m² and 40 mm/m², respectively.

**Conclusion** Precipitation by itself is not associated with PICH incidence, nevertheless has a synergistic effect in low DTR days.

---

**P1-467** SERO-PREVALENCE OF RIFT VALLEY FEVER IN SOUTHWESTERN SAUDI ARABIA

*doi:10.1136/jech.2011.142976g.56*

**Introduction** The objective was to study seroepidemiology and potential risk factors of Rift Valley Fever (RVF) virus infection in South Western Saudi Arabia.

**Methods** A random sample of the general population were studied. Through questionnaire interviews, data were collected regarding sociodemographic status, housing conditions, animal contact and other relevant information. Blood samples were taken and tested for RVF-specific IgG and IgM utilising enzyme-linked immunosorbent assays (ELISAs).

**Results** Out of 2322 persons included in the study, only 139 were positive for RVF-specific IgG giving an overall prevalence of 6.0%. On the other hand, none of the study samples were found to be sero-positive to RVF-specific IgM. The highest prevalence of sero positive RVF IgG was observed in Al Birk of Aseer region (13.3%) followed by Al-Arda of Jizan Region (11.8%), where the first animal deaths were reported during 2000—2001 outbreak. The study revealed zero prevalence of specific IgM and IgG among children born after the 2000—2001 outbreak. Using multivariate binary logistic regression analysis, the following significant risk factors were identified: lacking house electricity, having animals in the house, history of slaughtering animals, contact with or transporting aborted animals.

**Conclusion** The lack of recent virus activity mandates the rigorous maintenance of the control measures undertaken by the Ministries of Agriculture and Health. It is recommended to have regular seroepidemiological surveillance of RVF among humans, fostering public health messages in the region for risk reduction on reducing the risk of animal-to-human transmission as a result of unsafe animal husbandry and slaughtering practices.

---

**P1-468** TOWARDS A MODE OF COLLECTIVE CONSTRUCTION OF EPIDEMIOLOGICAL KNOWLEDGE

*doi:10.1136/jech.2011.142976g.57*

**Introduction** Changes in meteorological parameters have been associated with stroke occurrence. The incidence of primary intracerebral haemorrhages (PICH) seems to increase in days with cold/mild outdoor temperature. In Portugal, neurologists forward the hypothesis that the incidence of PICH increases in rainy days and not particularly low temperatures. This study aims to study the association between occurrence of PICH and weather parameters.

**Methods** Data from ACINrpc-project, involving 78 patients suffering a first-ever-in-the-lifetime PICH over a 2-year period in the city of Porto was used. Information on daily weather parameters was obtained from the National Meteorological Office. A Poisson model was used to estimate the association between weather parameters and PICH incidence. Using a conditional logistic regression model, a case-crossover design was then used to estimate the risk of PICH following specific exposures associated with PICH incidence: low diurnal temperature range (DTR) and rainy days. For each subject, the case period was matched with 4 control periods, the same weekday in the previous 4 weeks.

**Results** PICH incidence increases by 11.8% (95% CI 3.8 to 20.4%) for 1°C drop in DTR and 3.1% (95% CI 1.1 to 5.1%) for a 1 mm/m² in precipitation. Following a day with a DTR<4°C the OR is 2.9 (95% CI 1.4 to 5.8), increasing to 8.8 (95% CI 1.7 to 44.8) after a 48 h exposure. Following days with low DTR and rain, the OR is 5.2 (95% CI 1.3 to 8.1) and 9.5 (95% CI 1.1 to 88.9) for a precipitation>10 mm/m² and 40 mm/m², respectively.

**Conclusion** Precipitation by itself is not associated with PICH incidence, nevertheless has a synergistic effect in low DTR days.

---

**P1-469** SERO-PREVALENCE OF RIFT VALLEY FEVER IN SOUTHWESTERN SAUDI ARABIA

*doi:10.1136/jech.2011.142976g.58*

**Introduction** The objective was to study seroepidemiology and potential risk factors of Rift Valley Fever (RVF) virus infection in South Western Saudi Arabia.

**Methods** A random sample of the general population were studied. Through questionnaire interviews, data were collected regarding sociodemographic status, housing conditions, animal contact and other relevant information. Blood samples were taken and tested for RVF-specific IgG and IgM utilising enzyme-linked immunosorbent assays (ELISAs).

**Results** Out of 2322 persons included in the study, only 139 were positive for RVF-specific IgG giving an overall prevalence of 6.0%. On the other hand, none of the study samples were found to be sero-positive to RVF-specific IgM. The highest prevalence of sero positive RVF IgG was observed in Al Birk of Aseer region (13.3%) followed by Al-Arda of Jizan Region (11.8%), where the first animal deaths were reported during 2000—2001 outbreak. The study revealed zero prevalence of specific IgM and IgG among children born after the 2000—2001 outbreak. Using multivariate binary logistic regression analysis, the following significant risk factors were identified: lacking house electricity, having animals in the house, history of slaughtering animals, contact with or transporting aborted animals.

**Conclusion** The lack of recent virus activity mandates the rigorous maintenance of the control measures undertaken by the Ministries of Agriculture and Health. It is recommended to have regular seroepidemiological surveillance of RVF among humans, fostering public health messages in the region for risk reduction on reducing the risk of animal-to-human transmission as a result of unsafe animal husbandry and slaughtering practices.