

THE CORRELATION BETWEEN SEASONAL TEMPERATURE AND INCIDENCE OF OVERACTIVE BLADDER IN OUTPATIENT DEPARTMENT - A NATION-WIDE DATABASE STUDY

Hypothesis / aims of study

In outpatient clinic, it was commonly complained of urgency incontinence deteriorating in winter and cold temperature during the occasion of washing hands with freezing water. We are interested in the correlation between incidence of overactive bladder syndrome and seasonal temperature. We investigated if the new occurrence of overactive bladder is associated with seasonality temperature by analyzing a nation-wide database.

Study design, materials and methods

The subset of the National Health Insurance Research Database (NHIRD) of Taiwan contains data on all medical benefit claims and covers more than 98% of Taiwan populations. A urology dataset including 3,431,366 individuals was selected from the National Health Insurance Research Database (NHIRD) for the year 2006 to 2010. Their claim data were used for the study. We recruited all patients newly diagnosed with urgency incontinence ((ICD-9-CM code 788.31 & 788.33) with medication of antimuscarinics (prescription more than 14 days). The data of seasonal temperature were gained from central weather bureau of Taiwan (Spring - Mar to May, Summer - Jun to Aug, Autumn - Sep to Nov, Winter-Dec to Feb). We also compared the difference in the incidence rate of overactive bladder between different genders and between different ages.

Results

Among the overall 3,431,366 individuals who visited urology outpatient clinic during 2006 to 2010, 43,501 patients was newly diagnosed by urologist and received medication of antimuscarinics for more than 14 days at the same visit. These patients were further divided into four seasons of each year. The incidence rate of overactive bladder in each season was around 0.418% to 0.856%. (figure 1) The incidence rate of female patients was totally higher than male patients. (figure 2) The incidence rates of the age group older than 80 years old showed no significant difference to the age group between 40 and 60 years old. (Figure 3) However, the younger groups (20 ~ 40 and 40 ~60) showed obviously lower incidence rate.

Interpretation of results

The incidence rate of newly diagnosed overactive bladder was inversely correlated with seasonal temperature. In urological clinic, women have significantly higher incidence rate of overactive bladder than men. Those who were older than 60 years old have higher incidence rate of overactive bladder as well.

Concluding message

The colder the temperature the more incidence rate of overactive bladder newly diagnosed. With aging more than 60 years old, the higher incidence rate was also noted. In outpatient clinic, women have significantly higher incidence rate of overactive bladder than men.

Figure 1

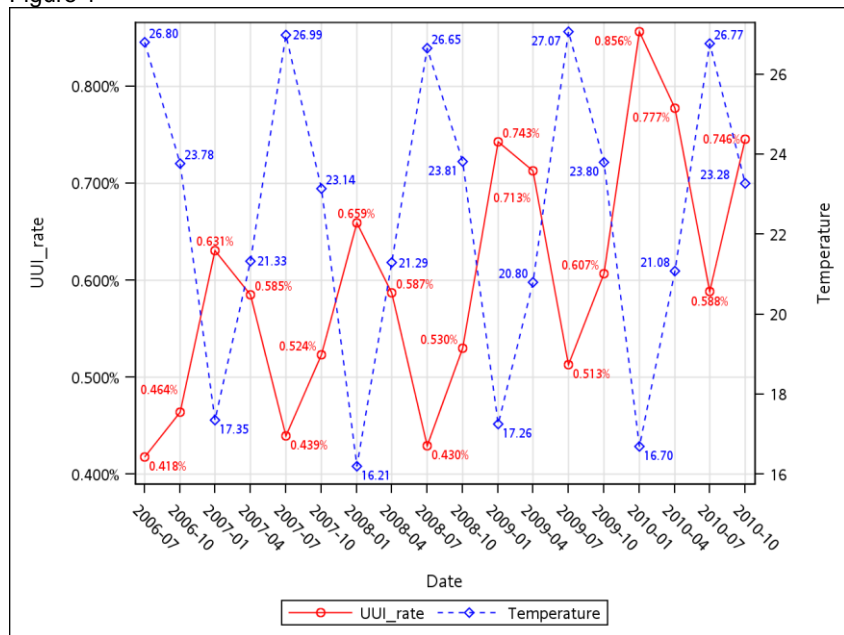


Figure2

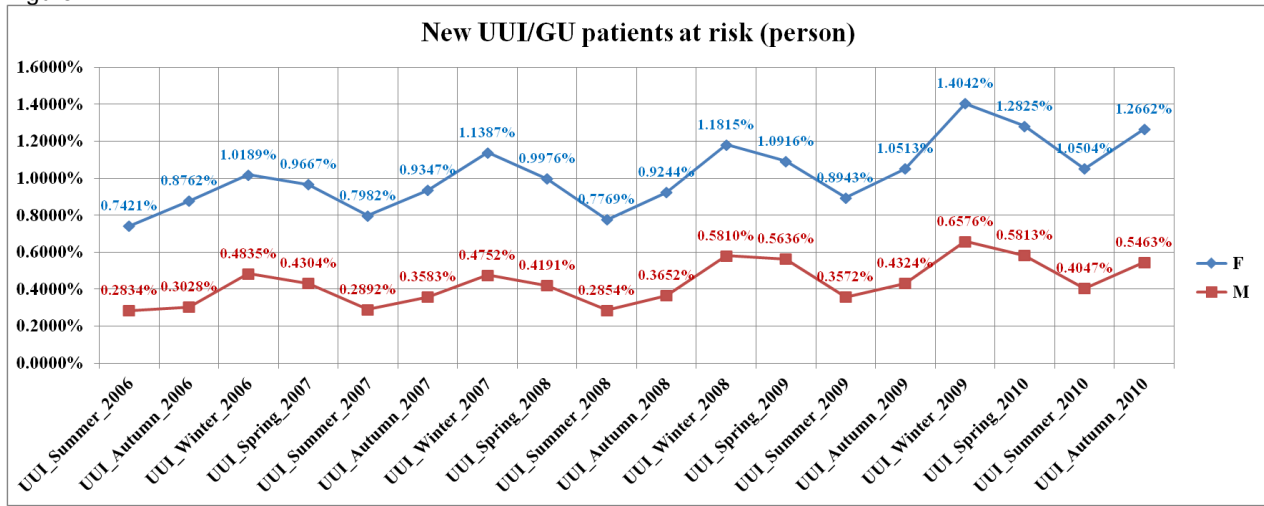
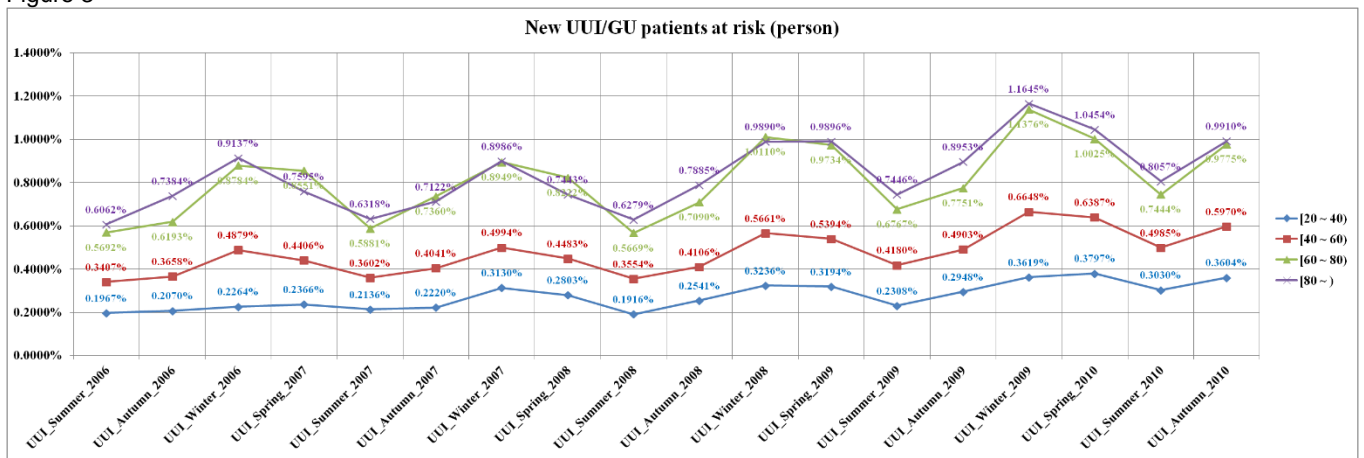


Figure 3



Disclosures

Funding: No funding, no grant **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Taipei Veterans General Hospital IRB **Helsinki:** Yes **Informed Consent:** No