

## Sex-related variations in the frequency and characteristics of adverse drug reactions

Domecq,

Naranjo,

Ruiz,

Busto,

Sex-related variations in the clinical effects of drugs may be observed. In an intensive prospective drug surveillance study of 1920 patients hospitalized at the Department of Medicine of the J.J. Aguirre Hospital in Santiago, Chile, the frequency of adverse drug reactions (ADR) was significantly higher in females than in males ( $p < 0.0005$ ). Women presented more commonly gastrointestinal and cutaneous allergic reactions. In males electrolyte disturbances were more frequent. Drugs inducing ADR were very similar in both sexes. Eighty-three per cent of ADR in males and 93% in females were dose-related effects. Hospitalization was lengthened by a significantly higher proportion of ADR in men than in women. Other ADR's risk factors such as age, number of drugs administered and duration of hospitalization did not account for the differences observed. In males with ADR there was a higher proportion of patients with cirrhosis and renal insufficiency. These findings suggest that sex is a determn