

## ***Hospital Separations for Haemolytic Uraemic Syndrome in New South Wales, 1996-1998***

Voetsch D. Hunter Public Health Unit.

**Background:** Haemolytic Uraemic Syndrome (HUS) is a rare complication consisting of microangiopathic haemolytic anemia, thrombocytopaenia, and acute renal impairment. There is a strong association between HUS and prior infection with Enterohaemorrhagic *Escherichia coli* (EHEC) strains, particularly *E.coli* O157:H7, in Europe, Canada and the United States. However, the epidemiology of EHEC infections is different in Australia compared to the United States. Surveillance for EHEC strains is not conducted in a systematic way in Australia. To better understand HUS, hospital separation data were reviewed to determine the burden of HUS in NSW to compare with the rates from other countries.

**Method:** Linked hospital separation data from the NSW Health Outcomes Information Statistical Toolkit (HOIST) system from July 1996 through July 1998 were reviewed. A case was defined as any ICD9 hospital separation code of 283.11 (Acquired haemolytic anaemia - haemolytic uraemic syndrome) listed in the first three diagnoses.

**Results:** During these two years, a total of 75 records were listed with ICD9 code 283.11. Of these, 44 (59%) met the case definition. The median age of cases was 14.2 (range 0-73.8) years and 25 (56.8%) were females. There were slightly more cases (30-%) admitted in the summer months (December-February) than in other seasons. The cases spent an aggregate total of 946 days in hospital with a median length of stay of 12.5 days (range 1-161 days). Seven (16%) cases spent a median of 94 hours (range 24-264 hours) in an intensive care unit. Four (9.1%) received kidney transplants, 9 (20.5%) had acute renal failure and 6 (13.6%) had chronic renal failure. None of the cases died. The calculated annual incidence of HUS in New South Wales is 0.36 cases per 100,000 population. Among children less than 15 years, the incidence is 0.85/100,000. Among the 31 records that did not meet the case definition, thirty included ICD9 codes for renal complications, including 6 (19.4%) with kidney transplants or complications from transplants, 4 (12.9%) with complications of renal dialysis, 15 (48.4) with chronic renal failure, and 5 (16.1%) with acute renal failure.

**Discussion:** A report of the Australian Paediatric Surveillance Unit (APSU) reported 21 cases from July 94- December 1998, compared with 22 from children <16 years from HOIST during half of this time period. Either the APSU is not detecting all cases of HUS or the NSW hospital separation data may overestimate the number of cases in NSW. Since becoming a notifiable condition in 1998, a total of 15 cases have been reported to NSW Health. Although a rare condition, HUS represents significant burden on the medical system.

***Prepared 1999***