Review of Assessment (Diagnosis) of Hyponatraemia

Penny Dhanjal, Medical Science Manager, Otsuka Pharmaceuticals UK Ltd
Dr Jayadave Shakher, Consultant Physician in Diabetes and Endocrinology, Birmingham Heartlands Hospital, UK

Introduction
Hyponatraemia is the commonest electrolyte disorders encountered in Hospitals. The aetiology of hyponatraemia is based on clinical assessment and biochemical investigations. However, studies have shown that recommended guidelines are usually not implemented.

Aim
Review of Assessment (Diagnosis) of Hyponatraemia and outcome based on length of stay (LOS) in Hospitals.

Methods
A systematic search using PUB Med and Med Line, including an Internet search of published abstracts from British Endocrine Society, European Endocrine Society and Lung Oncology was conducted between 2002 and 2014 in UK hospital settings.

Results
18 publications were identified using search criteria using the key word hyponatraemia combined with investigations, management and outcomes. Two were journal publications and the rest were abstract submissions which were of retrospective audit analysis of patients admitted with hyponatraemia in hospitals. Total of 2052 patients and the duration of the studies vary from 2 weeks to 52 weeks. There was wide variability with definition of hyponatraemia and S Na <135 mmol/l and <125 mmol/l were commonly used. The aetiology diagnosis of SIADH was mentioned in all studies but only average score of 25 % was recorded in all domains with regards to serum and urinary osmolality and urine sodium. The average score improved to over 50% when cut off S Na was less than 125 mmol/l. The LOS was reported in 9 studies and overall mean was 16 days.

Conclusions
Though the definition of hyponatraemia is <135 mmol/l, the audit findings seem to indicate there is higher threshold for detailed biochemical investigations when S Na is <125 mmol/l and to some extent when S Na falls to less than 130 mmol/l. This probably reflects under investigations with accurate diagnosis of hyponatraemia which would have an impact on management as shown in recent published study (Toulis et al, PGMJ 2014:0:1-5).