Dysnatremia in intensive care
Khalil Ahmad
Rashid Hospital, UAE

Dysnatremia is commonly seen in intensive care setting. If it is not timely diagnosed and corrected, it can lead to serious consequences. Early detection and correction may improve prognosis especially in neurocritical care. It can be hypo or hypernatremia; both have worst effect on overall prognosis if not corrected timely. Hypernatremia is defined if serum sodium is >145 mmol/liter. It is due to relative water depletion with total body sodium content normal, low or high. Diabetes insipidus is one of the most common causes of hypernatremia in neurocritical care. Hyponatremia is the other entity which accounts about 15-20% of all emergency admissions and can affect on prognosis significantly. In spite of much understanding of the topic, its management remains still problematic. Hyponatremia is defined as if serum sodium <135 mmol/liter and it is classified as mild, moderate and severe on the basis of serum level. On the basis of onset duration, it is defined whether acute or chronic hyponatremia. Broadly speaking dilutional and volume depletion are the two most common causes of hyponatremia, remaining are endocrinal, use of diuretics and certain drugs leading to hyponatremia. The management of either entity depends upon the cause leading to hypo or hypernatremia. It is of prime importance to avoid overcorrection, during management of hyponatremia or hypernatremia. Different calculations are used to calculate total sodium deficit and total water deficit before starting correction. Special care is needed in neurocritical care like patients with acute traumatic brain injuries and acute stroke for early detection and correction of serum sodium levels to avoid adverse effect on overall prognosis. Hyponatremia is broadly classified into hypotonic, hypertonic or isotonic based on measured serum osmolality. It is the acute hyponatremia (less than 48 hours onset) which can affect the prognosis adversely because most of compensatory mechanisms to hypotonic environment are not fully developed yet as compared to chronic hyponatremia (>48 hours); so, if hyponatremia is timely corrected during first 48 hours of onset, further complications like development of malignant brain edema can be prevented.

Biography
Khalil Ahmad has completed his MBBS from Punjab Medical College Faisalabad, Pakistan in 1998. He then moved to FPGMI Shaikh Zayed Hospital Lahore, Pakistan for Residency Program in Internal Medicine. He has passed Fellowship Exam in Internal Medicine (FCPS) from College of Physicians & Surgeons in 2005 and moved to Dubai, UAE in 2006 and joined Rashid Hospital, Dubai Health Authority and also qualified Membership Exam from Royal Colleges of Physicians, UK (MRCP) in 2011. He has completed European Diploma in Intensive Care Medicine (EDIC) conducted by European Society of Intensive Care Medicine in 2013.

dkahmad786@yahoo.com