**Response 1**

**Religious Practices & Electrolyte Imbalances**

Some spiritual practices might have implications for patients in terms of fluid and electrolyte balances (fasting, sweat lodges, etc). These practices are an important part of people's lives, but as providers, how do we keep patients safe while honoring their beliefs?

**Response 2**

**Hypertonic saline**

In acute severe cases of Syndrome of Inappropriate Antidiuretic Hormone (SIADH), correction is done using intravenous Hypertonic saline. (McCance &Huether, 2018). Hypertonic saline is a saltwater crystalloid intravenous fluid with sodium leveler higher in concentration than found normally in the body’s blood. Hypertonic saline works by increasing the osmolarity of blood which pulls fluid into the intravascular space. This action should decrease cerebral edema and increase blood flow in that area. Hypertonic saline is usually administered in combination with the drug mannitol to help reduce intracranial pressure. (Mason et al., 2021). Having a working patent IV is necessary to administer intravenous hypertonic saline.

Treatment with Hypertonic saline should be stopped once there is an improvement of symptoms or when acceptable serum sodium levels are met. (Mason et al., 2021). Hyponatremia needs to be corrected carefully and not too quickly or it can cause severe neurologic issues. (McCance &Huether, 2018). Boluses of Hypertonic saline have shown to have fewer adverse effects compared to more prolonged infusions. Overall, there are few adverse effects. There is the possibility of hyperchloremic metabolic acidosis and hypernatremia as side effects. Another side effect listed is osmotic demyelination syndrome; however, this only occurs if correction is done too quickly. (Mason et al., 2021). Patients receiving this treatment should have monitoring of serum sodium and potassium. Fluid volume intake and output should also be carefully measured. (Mason et al., 2021). A fluid restriction of 800mL to 1L should be enforced until sodium levels are corrected. (McCance &Huether, 2018). There are no contraindications to this treatment; however, patients with heart failure or renal insufficiency will need dosing considerations due to higher fluid and sodium loads. (Mason et al., 2021).

**References**

Mason, A., Malik, A. &Ginglen, J.G. (2021, September 6). Hypertonic Fluids.StatPearls Publishing; 2021 January. <https://www.ncbi.nlm.nih.gov/books/NBK542194/>

McCance, K. L., &Huether, S. E. (2018). Pathophysiology (8th ed.). Elsevier Health Sciences.