**Reflective log: 7.2 Fluid and electrolyte disorders**

**Period of training: May 2015 – June 2017**

**Summarise the laboratory role in the previous sections(s):**

The monitoring of patients both for fluid and electrolyte disorders plays a vital in basic care especially emergency admissions through our A&E departments and subsequently during a stay in the hospital ward.

Fluid and electrolyte disorders are mainly monitored by requesting clinicians by submission of a UE (Urea and Electrolyte) test although some variables do exist, for example in our department a Creatinine is included in the UE panel. In our department this type of request is one of the main tests performed both in number of samples received and clinical scope.

Other samples are sometimes received that may also give an assessment of water and electrolyte metabolism:

1. Osmolality
2. Urine electrolytes
3. GFR

Due to the nature of these tests and the rapid metabolic changes that can occur, the laboratory has a rapid turnaround times for these tests – usually within 1hr. Also due to the elderly population demographics that this trust serves renal function is usually a prerequisite for AE and during longer term hospital stay.

**Personal reflection on training and example of evidence.**

The training provided during this period gave me a sound understanding of the physiology of water and electrolyte balance including the analytical parameters undertaken in their assessment. As part of the testing I needed to know the principle of each method used and what follow up / secondary tests this trust refers to other laboratories e.g. ADH and Renin.

The evidence chosen was a small audit and study determining the relationship between measured and calculated osmolality. The method, results and conclusions are available in the evidence section of this section. I chose this piece of evidence as I believe it demonstrated both my ability to follow standard operating procedures for running the Beckman DxC analyser and my ability to use the osmometer. From this I was able to use various calculations to determine the difference and reflect on this.