**Introduction:** Medical emergencies are frequent in haemodialysis patients during their dialysis treatment. Those medical professionals first attending an emergency on the unit are often less familiar with the clinical environment and managing emergencies on haemodialysis. It is known that medical emergency simulation training improves patient outcomes (Theilen et al. Resus 2013). Simulation is an educational tool which provides experiential learning in a safe and controlled setting, allowing the team to practise management of a scenario on a manikin. It can also improve teamwork, communication, leadership and situational awareness. Our previous work described the set-up of this programme, (Watson et al. BJRM 2017), here we present the outcomes ten months after establishing this patient safety initiative.

**Objectives:** We aimed to improve: 1) The confidence of the interprofessional healthcare team in managing medical emergencies occurring on haemodialysis. 2) Improve communication, leadership and an awareness of the skills of other multidisciplinary team members. 3) Improve knowledge of the haemodialysis environment and the location of emergency resources.

 **Methods:** Simulation training sessions lasting 75 minutes, were run monthly over ten months on the main Kings College Hospital London haemodialysis unit. Each session was attended by doctors, dialysis nurses, and health care assistants. Scenarios were based on real patient scenarios, previous adverse incidents and perceived learners’ needs. These included cardiac arrest, seizures, acute gastrointestinal bleed, septic shock, air embolism, acute psychosis and anaphylaxis. The simulation involved use of a high fidelity manikin with a needleable fistula, or permacath attached to a dialysis machine. The scenarios were debriefed using the diamond model (Jaye et al. Clin Teach 2015), with focus on both the clinical management of the condition and on human factors such as communication and leadership. The learning points from the session were then circulated amongst the relevant members of the wider renal department. The programme was evaluated through pre and post course questionnaires, with confidence measured on a “Likert” scale and free text boxes for qualitative analysis. A non-parametric paired t-test, the Wilcoxon Signed Rank was performed to determine statistical significance.

**Results:** 66 individuals (23 doctors, 40 nurses and 3 healthcare assistants) have attended simulation team training on the main haemodialysis unit. Ten simulation sessions have taken place to date, based on seven different scenarios. A statistically significant increase in confidence has been seen in managing cardiac arrest (p= 0.006), gastrointestinal bleed (p=0.031), seizures (p=0.012), anaphylaxis (p=0.003) and acute psychosis (p=0.006). Statistically significant increases in the awareness of the skills of multidisciplinary team members (p=0.001), and increased confidence locating emergency resources (p<0.001) were also identified. Qualitative analysis of free-text answers on what was most liked about the training showed “multidisciplinary team”, “communication” and “leadership” to be most frequently used. The insitu simulation training highlighted areas for change to improve patient safety such as need to purchase an ECG machine for the dialysis unit.

**Conclusion:** This patient safety initiative has led to significant increases in the confidence of the interprofessional team in managing medical emergencies in the patient on haemodialysis as well as improved knowledge of the skills of team members in the multidisciplinary team and in locating emergency resources on the dialysis unit. It has highlighted areas for change to improve safety on the haemodialysis unit. Ultimately we hope that this will translate into improved patient outcome.