**Title:** Screening for latent TB in incident end-stage renal failure patients

**Problem:** The incidence of Mycobacterium tuberculosis (MTb) infection and its progression from latent to active infection is greater in the end-stage renal failure (ESRF) population in comparison to the general population. Following a serious untoward incident where patients and staff in a satellite haemodialysis unit were infected with MTb by person-to-person transmission, an expert group developed local guidance to prevent transmission of MTb within the renal service. This included screening all new ESRF patients for latent MTb by interferon gamma release assay (IGRA) testing.

**Purpose:** To determine latent MTb screening rates and outcome for all incident ESRF patients in 2016.

**Design:** Data was collected retrospectively from hospital electronic systems to identify: all incident ESRF patients (haemodialysis, peritoneal dialysis or transplant) within the county, IGRA assays and results, referrals and treatment plans.

**Findings:** 123 incident ESRF patients were identified in the county in 2016. 99 were screened for latent MTb through IGRA testing (principally Quantiferon). Two of these samples were not processed as they were overfilled so 97/123 (79%) had valid screening tests. 8/97 (8.2%) were positive although as expected the proportion was higher in SE Asians (13.9%). Nine patients had indeterminate results and a repeat test was only completed in two cases. There were differences between haemodialysis centres with one satellite unit only screening 14/39 incident ESRF patients and another achieving 100% testing. Four of the 20 pre-emptive transplant patients, 3/9 peritoneal dialysis patients, and the single home haemodialysis patient were screened for latent MTb via IGRA testing. Of the eight positive IGRA tests, follow-up with the TB service was arranged for six and three were prescribed and completed a course of chemoprophylaxis.

**Conclusion and relevance:** Since the introduction of the guideline, 79% of ESRF patients were screened for latent MTb through IGRA testing in 2016. Screening rates varied across the mode of renal replacement therapy and the haemodialysis satellite units. The majority of patients with positive screening results did have appropriate follow-up with the TB team. However, there was no further action taken on the majority of patients with indeterminate results. To improve these screening rates, the importance of latent MTb screening needs to be communicated wider within the renal department, with clear explanation regarding the screening process. To facilitate this, the following recommendations are underway with a re-audit planned for 2018: update the guidelines with further information regarding indeterminate results, create a flow chart summary to assist clinicians in how to respond to results, develop a local action plan with the renal nursing team to ensure all incident ESRF patients are tested and screen patients at work up for transplantation.