**INTRODUCTION.**The Renal Association recommends that 60% of planned incident haemodialysis start using Arteriovenous Fistulas [AVF] or Grafts [AVG], with previous studies demonstrating that AVFs have superior outcomes compared with AVGs and tunneled dialysis catheters. Primary patency, defined as intervention free survival, varies considerably within studies, ranging between 10-60% over varying degrees of follow up.

**AIMS**.
To undertake an audit assessing primary (intervention free survival) and secondary (survival) patency of AVFs formed over a 2-year period in a single centre. **METHODS.**
All incident AVFs formed in 2014 were included. Routine clinical data was collected retrospectively from CyberRen, ICM and MediSec. Data collected included common demographics, comorbidities (classified using the Charlson co-morbidity score; CCMS), cause of AVF failure and data sufficient to calculate primary and secondary patency. Patients were followed up for 2 years (until the latest date of 31/12/2016). Data analysis was performed using Microsoft Excel and STATA-SE(13.1).

**RESULTS.**142 AVFs were formed in 134 patients, with 8 patients having two AVFs formed within the audit period. The mean age was 68.2 years. The median CCMS was 4 and ranged between 2-10, with 42%, 29% and 29% having diabetes mellitus, cardiovascular disease and peripheral vascular disease respectively. Of the incident AVFs formed, 49% were brachio-cephalic (BCF), 31% were radio-cephalic (RCF) and 15% were brachiobasilic (BBF). 30% of patients died during the follow up period. Of the 142 AVF formed, 104 (73%) were used to dialyse patients with a median time to first use of 117 days (1st quartile = 50 days, 3rd quartile = 232 days). Two years post fistula formation primary patency (intervention free survival) was 49%; 51% of AVFs requiring at least 1 intervention, 31% requiring at least 2 and 15% requiring at least 3. First interventions included fistulogramplasties (79%), surgical superficialisation (15%) and surgical revision (6%). The median time to the first intervention was 166 days (1st quartile = 115 days, 3rd quartile = 288 days).In the same follow up period, secondary patency was 56%. Causes of fistula loss, excluding death, included thrombosis (36%), venous stenosis (33%), failure to mature (19%), difficulty needling (8%) and steal’s symptoms (3%). The median time to AVF Failure was 190 days (1st quartile = 44 days, 3rd quartile = 364 days). In the 38 AVF never used to dialyse patients, 27 failed in the 2-yr follow up period with a median time to failure of 81 days (1st quartile = 10 days, 3rd quartile = 190 days). Time to failure was not associated with patient age, CCMS, AVF type and the presence of AVF monitoring.

**CONCLUSION.**The primary patency rate of AVFs formed in a single centre is largely comparable to previous studies. Strategies need to be developed to more closely monitor the development of venous stenosis and thrombosis, the two commonest causes of AVF failure in our population (excluding death), to prevent unplanned morbidity secondary to loss of dialysis access.