## Outcomes of arteriovenous fistula creation for incident haemodialysis patients in southern Sarawak: A 12-month retrospective study

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## **ABSTRACT**

**Introduction:** Arteriovenous fistulas (AVF) is the KDOOI recommended preferred method of vascular access for patients undergoing haemodialysis. Southern Sarawak are one of the very few regions in Malaysia where there are a few surgical specialties creating AVFs. Objective: To investigate and evaluate the success rates of AVFs in patients starting haemodialysis across 12 HD centres in Southern Sarawak and comparing outcomes of different surgical specialties at 6 and 12 months. Materials and Methods: Patients starting dialysis in 2022 in 12 HD centres in Southern Sarawak were identified from the HD centres and e-National Renal Registry(eNRR) database. Information on referral for AVF, creation of AVF and vascular access for HD at 6 months and 12 months was collected retrospectively by review of clinic notes and hospital electronic database. Results: 115 patients (mean age 57.6 years) were identified. 61% were male and 50.4% were of Malay ethnicity. Majority had diabetes (66.1%) and hypertension (86.1%). AVF was created by vascular surgeons (62.6%), private surgeons (16.5%), urologist (14.8%) and plastic hospital surgeons (6.1%) respectively. At 6 months of HD initiation, 74.8% of patients (86) have functioning AVFs with AVFs created by urologists having the highest success rate at 88.2% (15/17). At 12 months of HD initiation, 88.7% of patients (102) have functioning AVFs with AVFs created by private hospital surgeons having the highest success rate at 94.7% (18/19). Vascular surgeons have the highest rate of AVF creations among all patients at 62.6% (72/115). This is contributed likely due to vascular surgeons being the main referred team at Sarawak General Hospital. Conclusion: The success rate for AVFs at 6 months and 12 months was high for the Southern Sarawak region for incident haemodialysis patients in 2022. All surgeons have a good success rate.