



Scope		Outcomes
Nurse Practitioner	<ul style="list-style-type: none"> • Patients with CKD referred by a Nephrologist • Preferably seen by Pre-dialysis Educator 	Patients identified for renal access assessment by Nephrology NP
Exclusion Criteria	Refer to RMO in following situations: <ul style="list-style-type: none"> • Acute placement of tunnelled and non-tunnelled CVC 	Refer to RMO
Initial assessment and interventions		
Primary Survey / History	<ul style="list-style-type: none"> • Co-morbid Diseases: <ul style="list-style-type: none"> ○ Diabetes ○ Peripheral Vascular Disease ○ Severe Congestive Heart Failure ○ Obesity ○ Cardiac diseases ○ Cerebro-vascular diseases ○ Severe joint diseases ○ Coagulation disorder • Vascular history: <ul style="list-style-type: none"> ○ renal access ○ central venous access ○ frequent infusions • Dominant arm 	Identify factors influencing renal access creation and future patency Identify patients not suitable for renal access and consult Nephrologist
Focused clinical assessment	<ul style="list-style-type: none"> • Inspection (skin) • Palpation (venous and arterial system) • Auscultation (arterial system) • Allen Test • Bilateral arm blood pressure 	Identify patients not suitable for renal access and consult Vascular Surgeons +/- Nephrologists
Working diagnosis and Investigations		
Imaging	<ul style="list-style-type: none"> • Doppler Ultrasound • Venogram (note: contrast precautions required in pre-dialysis patients. Refer to CPG - Prevention of Contrast Induced Nephropathy) 	Identification of veins suitable for renal access creation
Pathology	<ul style="list-style-type: none"> • Preoperative bloods: <ul style="list-style-type: none"> ○ Full Blood Picture (FBC) ○ Urea and Electrolytes (UE) ○ Glucose Plasma ○ Coagulation Profile Plasma (if not recently performed) 	Abnormal pathology will be identified



Interpretation of results (diagnostic features) and management decisions		Outcomes
Diagnosis	<ul style="list-style-type: none"> • Interpretation of imaging and pathology • Preferred site for renal access placement 	Most appropriate type and location for renal access
Referral	Referral as needed to: <ul style="list-style-type: none"> • Vascular Surgery • General Surgery • Anaesthetics • Allied Health Team 	Patient is referred to service required
Patient Education		
When to return	<ul style="list-style-type: none"> • Verbal instructions from Nephrology NP • Written patient information brochure 	Ensure patient understands problem, treatment and follow up
Follow-up Appointments	<ul style="list-style-type: none"> • Verbal instructions from Nephrology NP • Renal Access Clinic Report 	Patient and staff are informed
Certificates	<ul style="list-style-type: none"> • Absence from work certificates • Patient Assisted Transport Scheme forms • Other certificates as deemed appropriate 	
Clinical audit evaluation strategies		
KPIs	<ul style="list-style-type: none"> • Patients have received written information brochure • Western Australian Nephrology Database (WAND) 	Quality Improvement



References

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http://www.cari.org.au/dialysis_va_list_published.php

Davies, A. H. Gibbons, C.P. (eds) 2007. Vascular Access Simplified

National Kidney Foundation K/DOQI Guidelines 2000:

http://www.kidney.org/professionals/kdoqi/guidelines_updates/doqi_uptoc.html#va

MIMS Abbreviated Product Listing: MIMS Online Data Version: November 2009



Authorship and endorsement

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Key to terms

AVF – arterio-venous fistula
AVG – arterio-venous graft
CKD – chronic kidney disease
CVC – central venous catheter
KPI – key performance indicator
NP – nurse practitioner
RMO – registered medical officer

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