Multidisciplinary team for dialysis care

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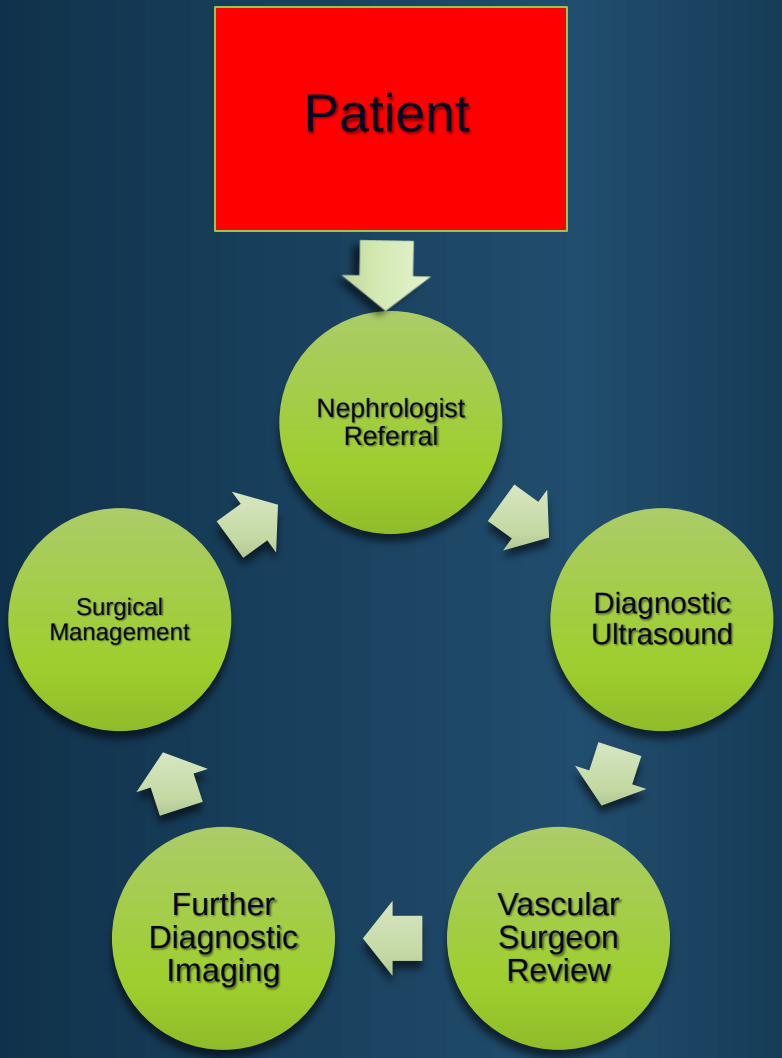
Defining the problem

Vascular access management is the leading cause of *hospitalisation* and *morbidity* for patients with haemodialysis dependent end stage kidney failure

National kidney foundation. KDOQI clinical practice guidelines and clinical practice recommendations for 2006 updates: hemodialysis adequacy, peritoneal dialysis adequacy and vascular access. Am J kidney dis 48:S1-S322, 2006 (suppl 1)

Standard vascular access patient management model



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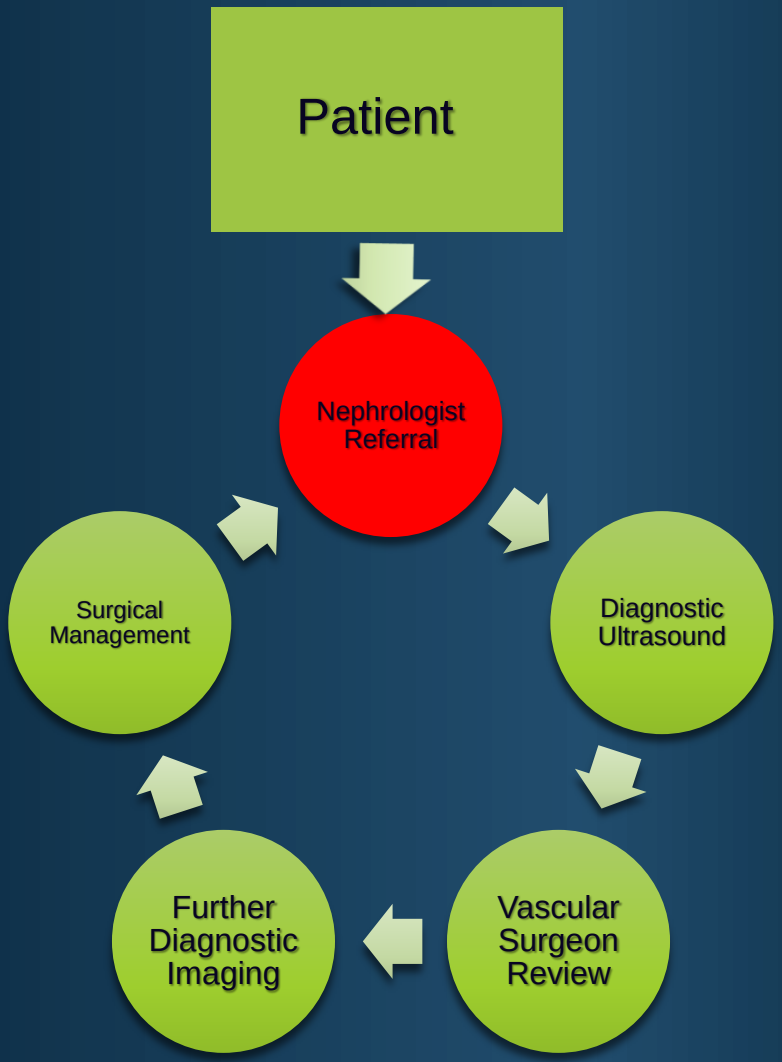

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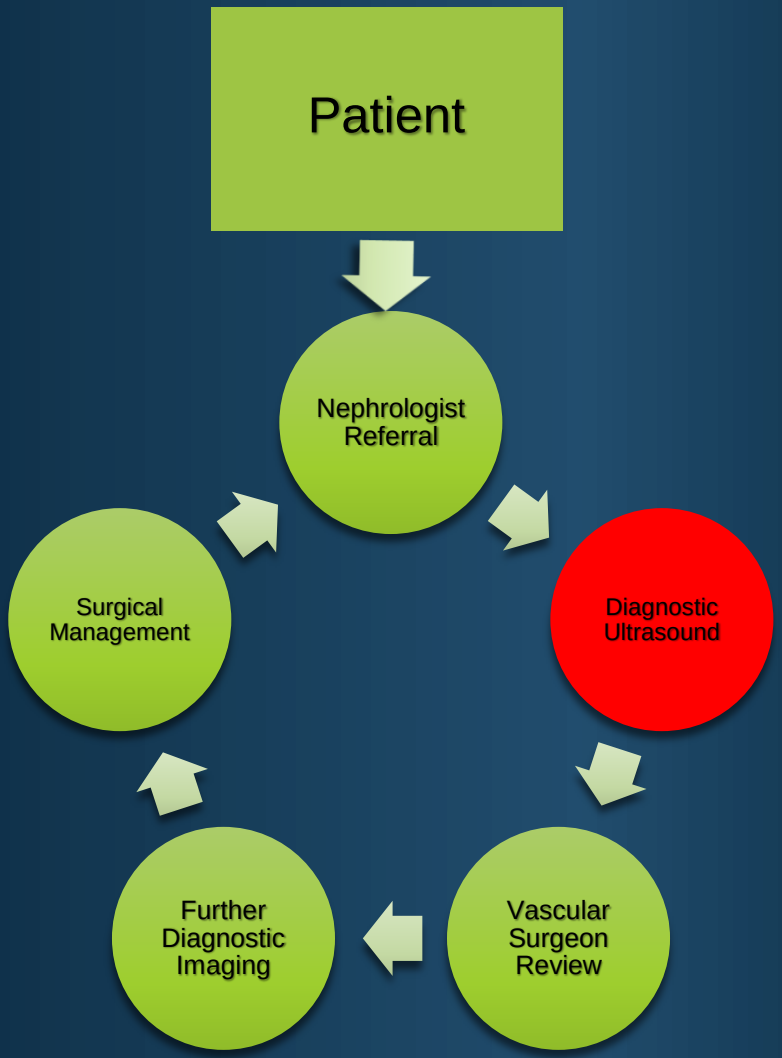

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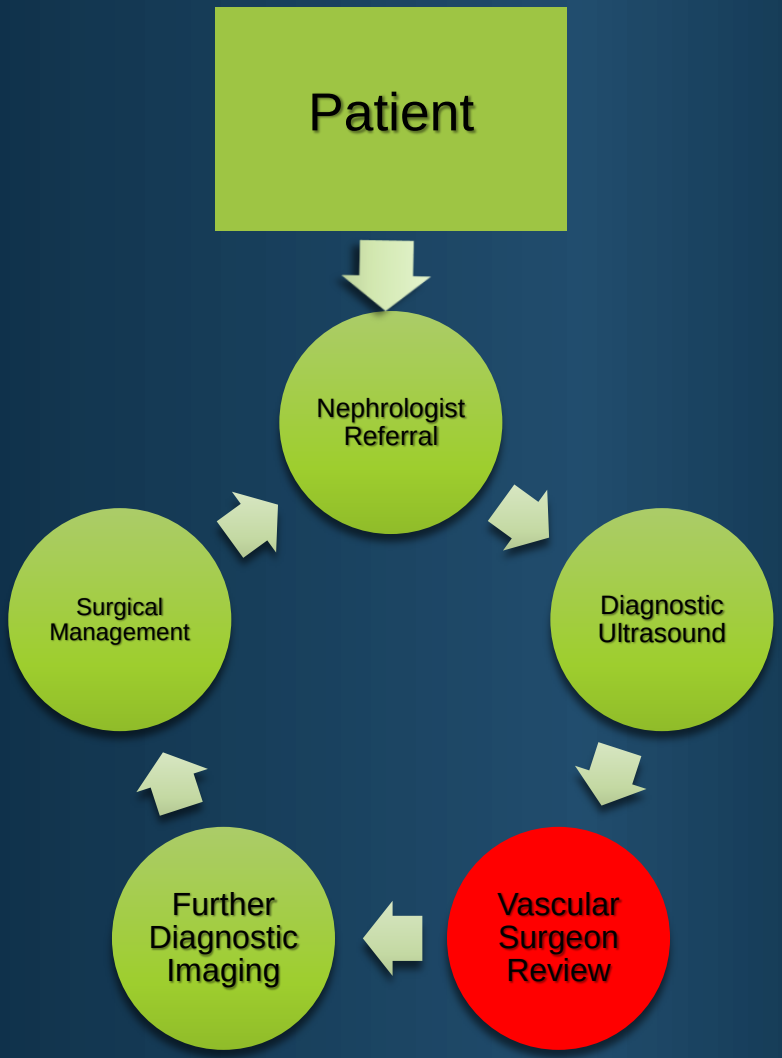

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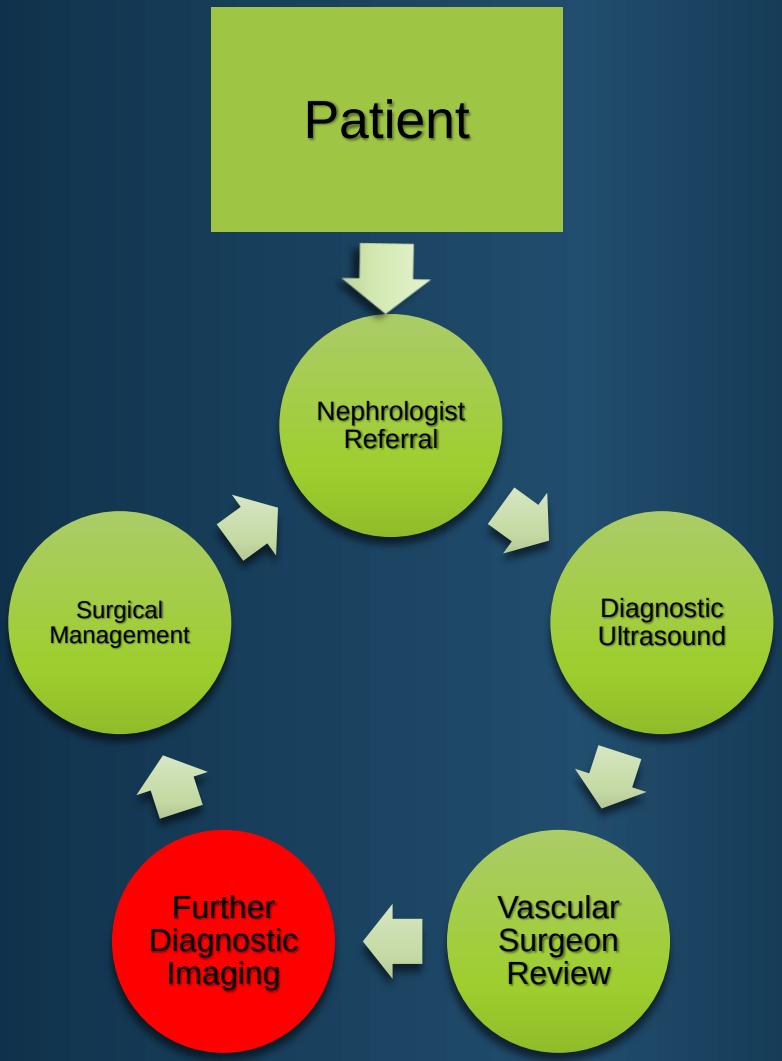

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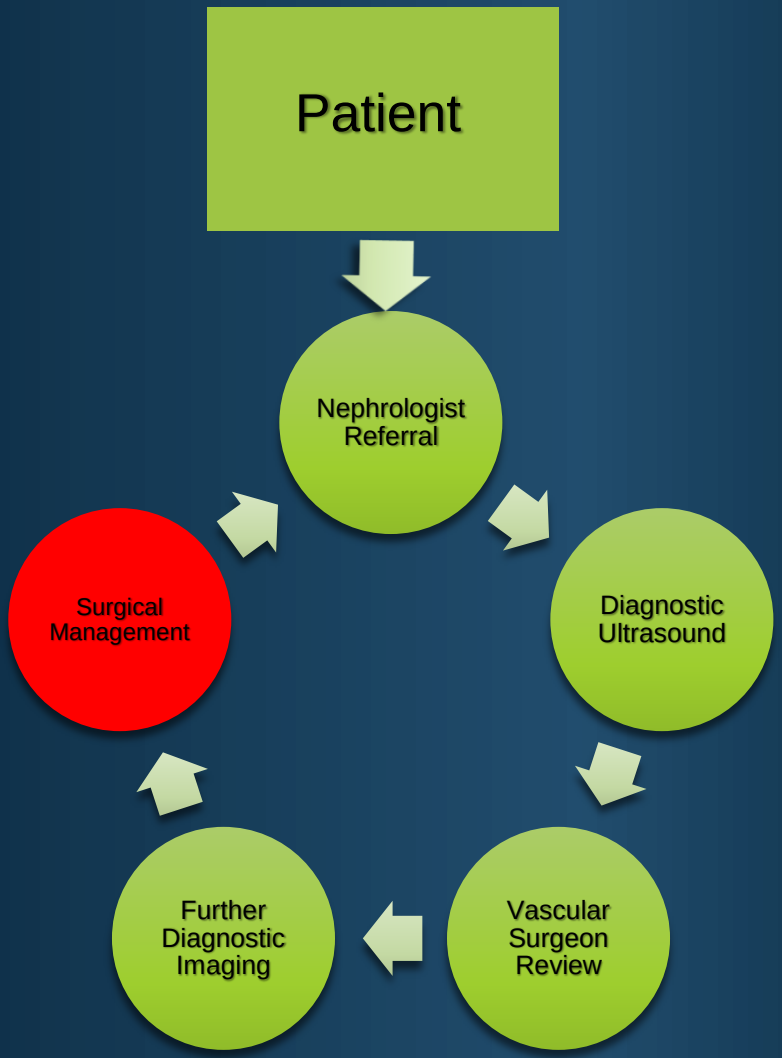

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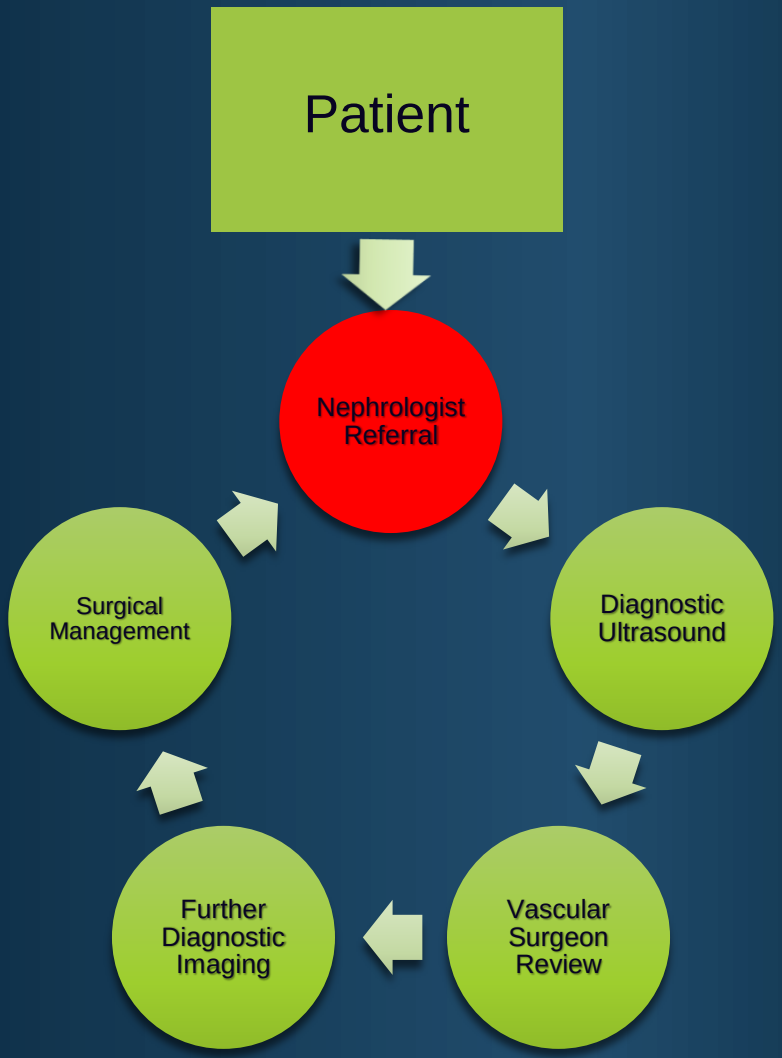
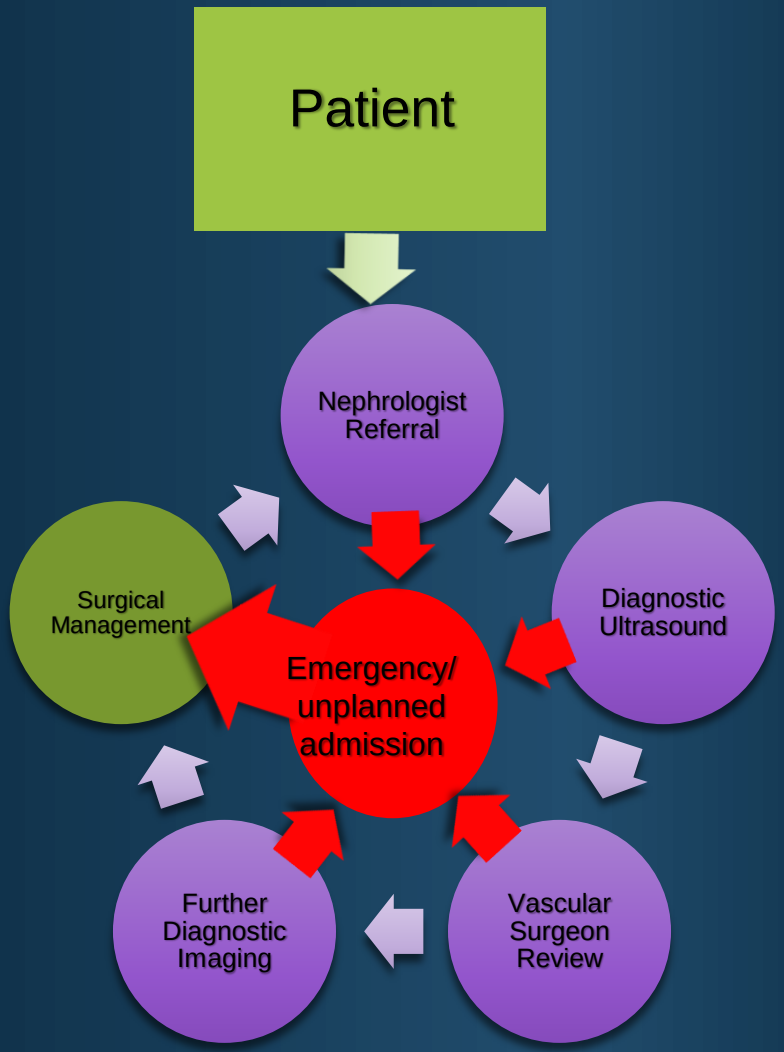


Acute access breakdown in the standard model



Patient experience

Frequent OPD session, several admissions, emergency surgery, delayed surgery, post operative complication, significant time in hospital

Hospital experience

Emergency/ICU-sub ICU/ward bed consumption, emergency operating list utilization

Financial burden!

Project description

Aim

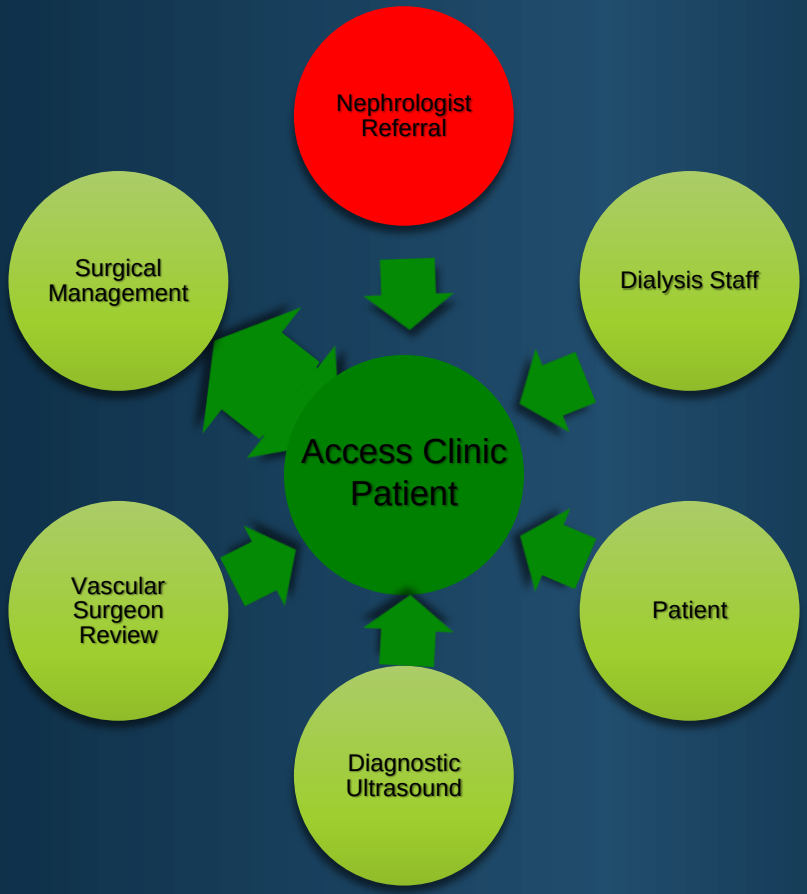
To improve vascular access outcomes for haemodialysis patients

Method

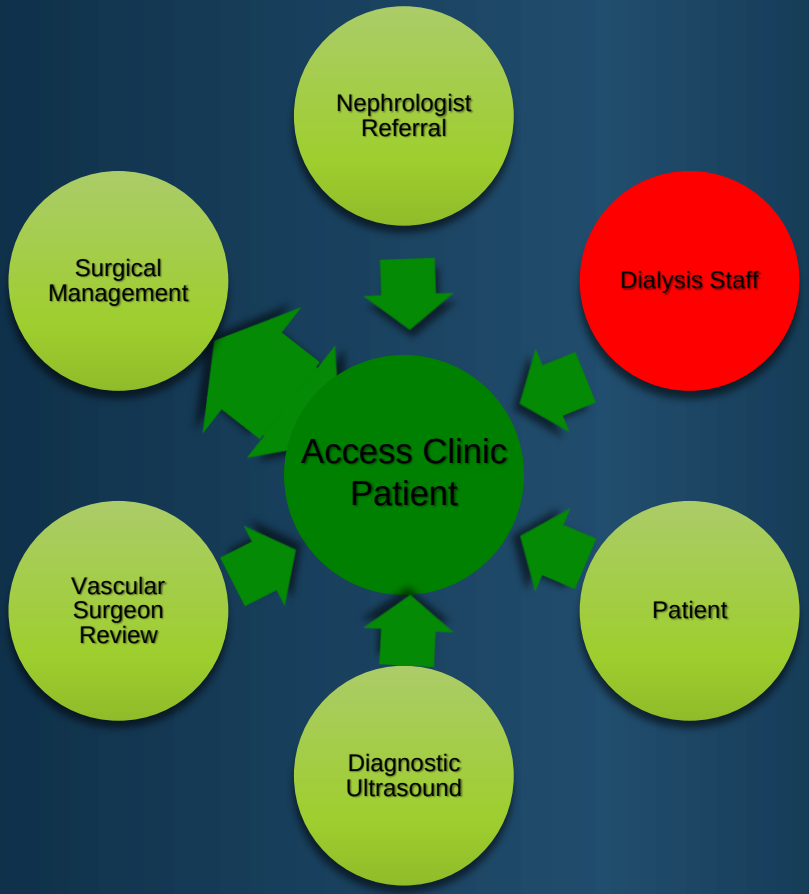
Formation of a public, weekly outpatient clinic

‘One-stop shop’

The ‘one-stop shop’ concept



The ‘one-stop shop’ concept



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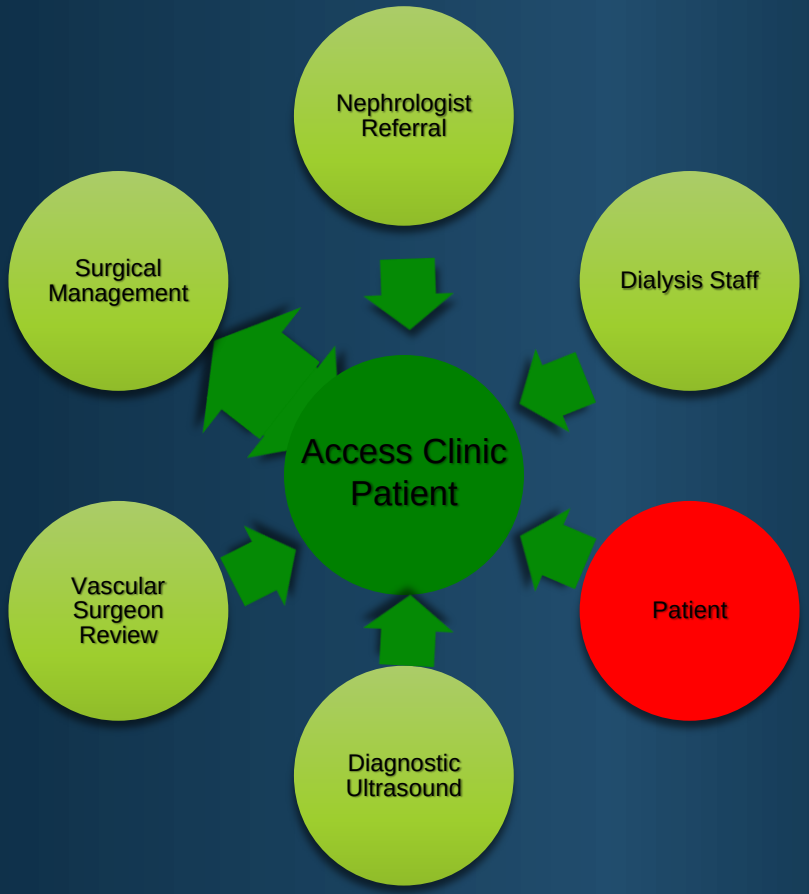

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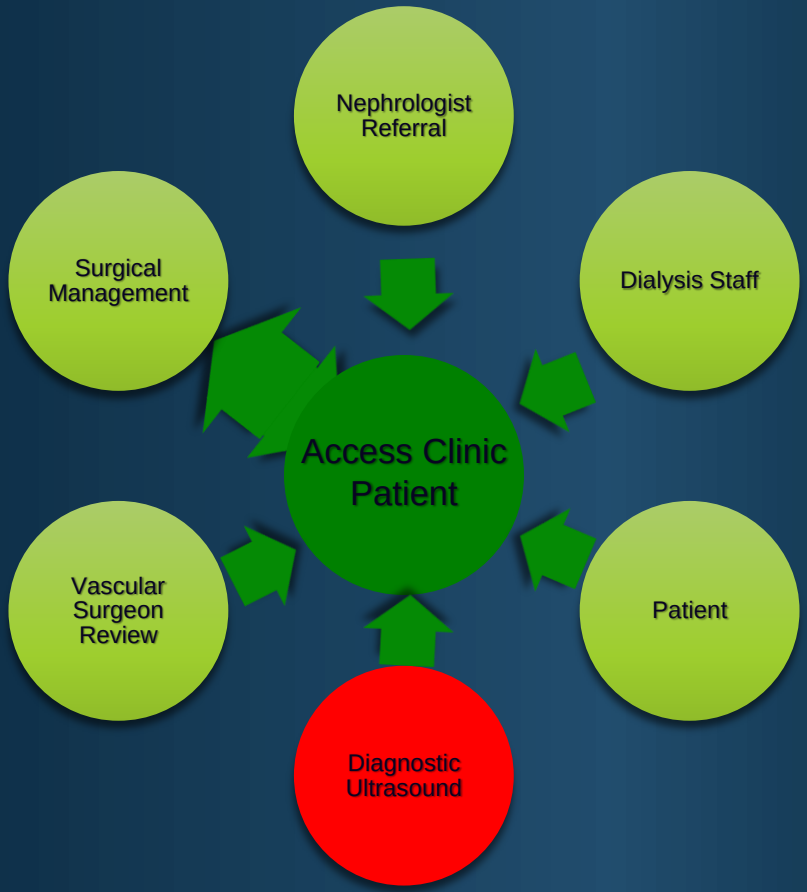

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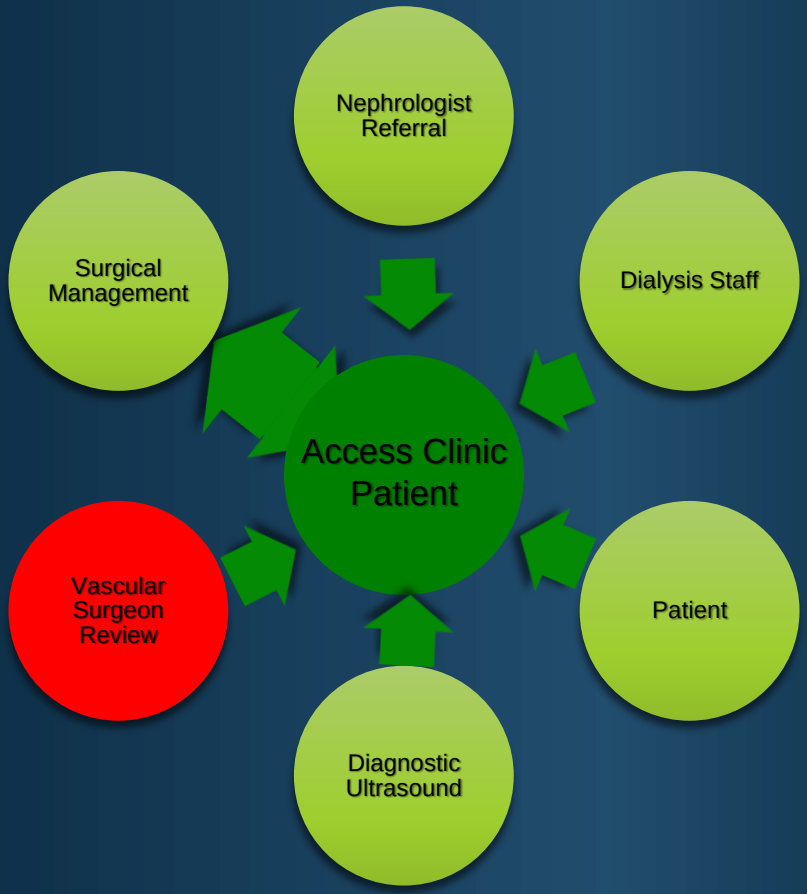

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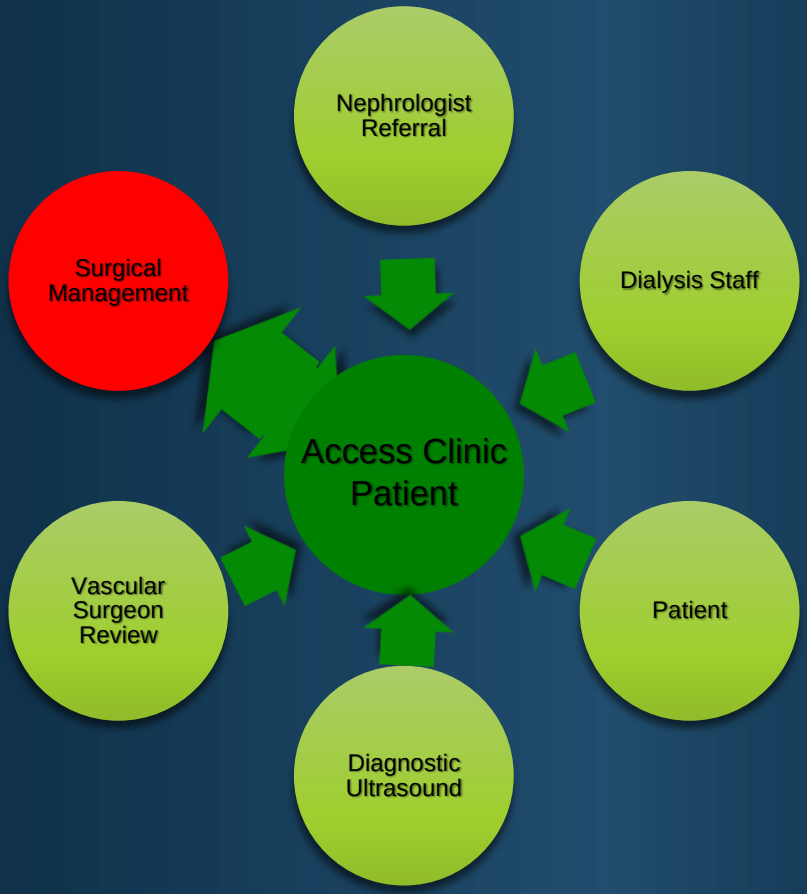


The ‘one-stop shop’ concept

RENAL VASCULAR ACCESS

- New patient was referred to clinic by renal physicians when GFR 15-20 mL/min

- Problematic access: cannulation difficulties, decline transonic access flow measurement, limb pain and weakness

Clinic audit

Retrospective study

All patients with admissions for access concerns

In Prince of Wales Hospital, Sydney

Preclinic group: January 2011- December 2012

Postclinic group: January 2013- December 2014

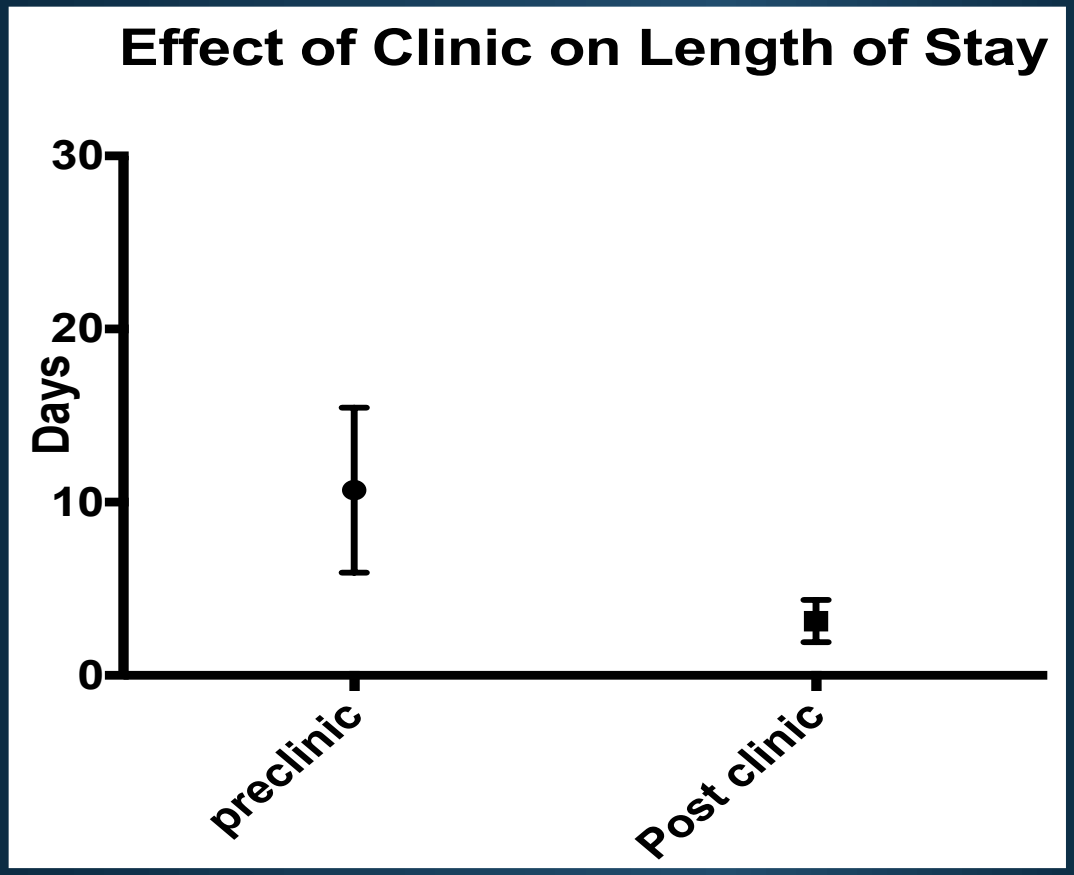
Results

Total active dialysis population

Number of admissions

189 preclinic group to 158 post clinic group

Results



Mean length of stay reduced from 10.71 to 3.14 days (p=0.0056)

Results

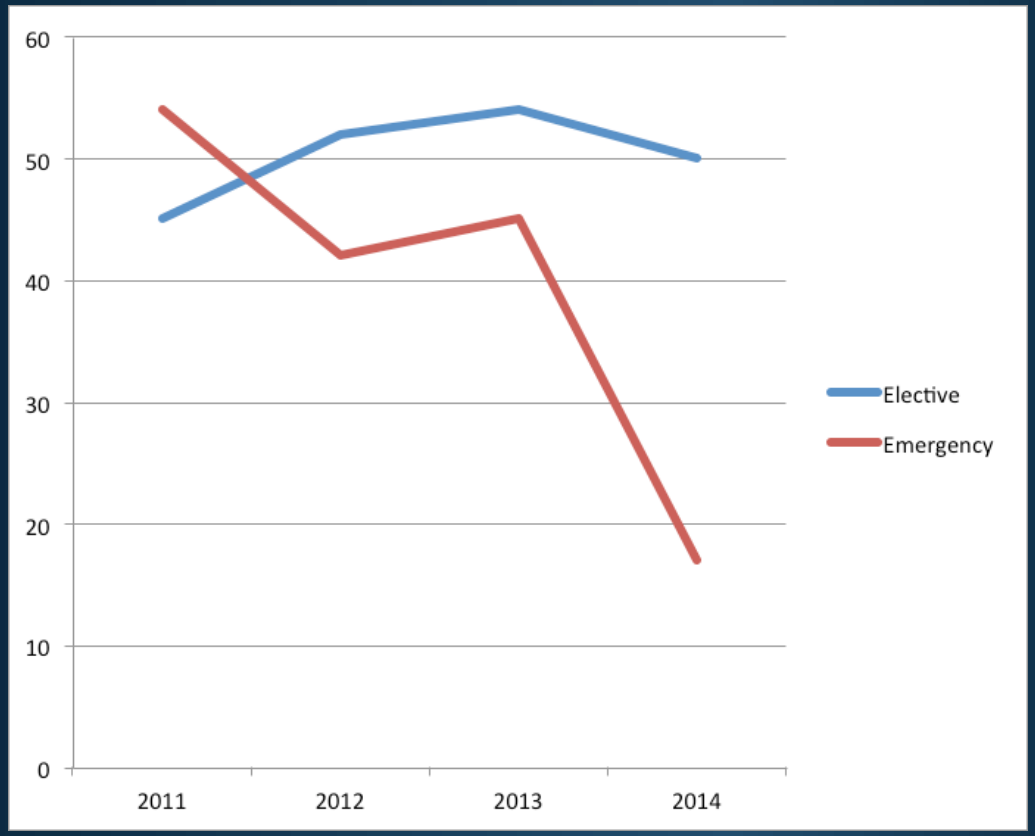
Reduction in inpatient wait time for surgery

(ie date of admission to date of operation)

3.23 days to 0.7 days (p=0.0016)

Results

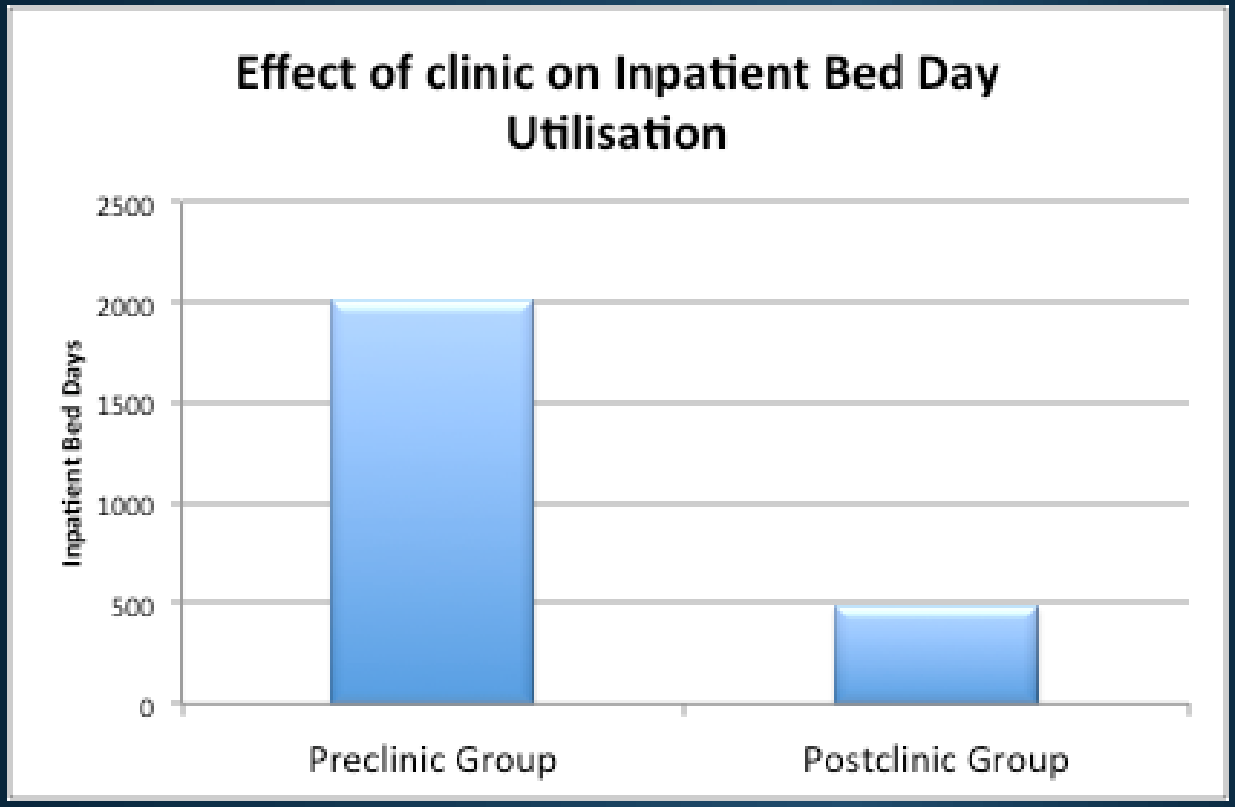
Operating Theatre Utilisation



Significant reduction in Emergency Surgery from 54.5% to 25.4% (p=0.002)

Results

Hospital Resource Utilisation



1522 bed days saved in post clinic group

Efficiency improvements

$4.89 million total cost for surgical admissions preclinic group

$1.53 million total cost for surgical admissions post clinic group

This clinic has saved $3.31 million

Does this apply to you

Quality improvement/ process innovations

One stop shop for the patient: improved patient flow and efficiency

The clinic unlocks the patients medical problems from their vascular access

Conclusion

- The vascular access clinic has improved outcomes for haemodialysis patients
- The clinic has also allowed a major cost and resource saving
- This model of care is easy to replicate and transferable to other vascular access hospitals

Thanks to

- Dr. John Swinnen, Westmead Hospital, Sydney

- Dr. Shannon D Thomas, Prince of Wales Hospital, Sydney

Thank you for your attention