



VCR Initiative: The Impact of Vascular Care Re- engineering Program on Outcomes of Newly Created Vascular Access

PMH / M&G Department / Renal Unit
APN LEE Shuk-hang



Vascular Access for Hemodialysis (HD)



Vascular Access



Arteriovenous Fistula (AVF)



Synthetic Graft (SG)

Vascular Access Care Program

Is our vascular access care up to the standard?

Review current clinical outcomes again international benchmark

Traditional Program



Clinical Outcomes	Current clinical outcomes in 2010	KDOQI Guideline Clinical Outcome Target
Primary failure rate (%)	47%	< 15%
Prevalence of AVF use for HD	51%	> 65%
Cuffed catheter used for HD	24%	< 10%

Vascular Care Re-engineering Process

Meeting

- Review current referral logistics and care flow
- Identify gaps
- Work out improvement initiatives

Implementation

- Patient and staff education
- Continuous monitoring and refinement of program

Evaluation

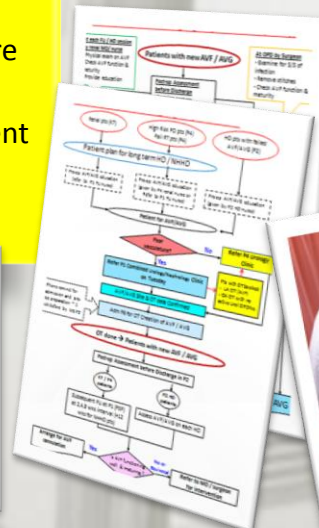
- Outcome data collection and evaluation
- Input for further improvement

Action Plan

- Formulate new care flow
- Develop new patient and staff teaching materials

Multidisciplinary Vascular Access Team

- Formed with nephrologists, surgeons and renal nurses



Outcomes

Vascular Access Functionality

(*Chi-square Test: Significant at 1% level)		2010	2011	p-value*
Total No. of AV Access Creation		50	54	-
	AVF	36	40	-
	SG	14	14	-
Total No. of Primary non-function (%)		21 (42%)	4 (7.4%)	P<0.01
	AVF	17 (47%)	4 (10%)	P<0.01
	SG	4 (29%)	0 (0%)	P<0.01

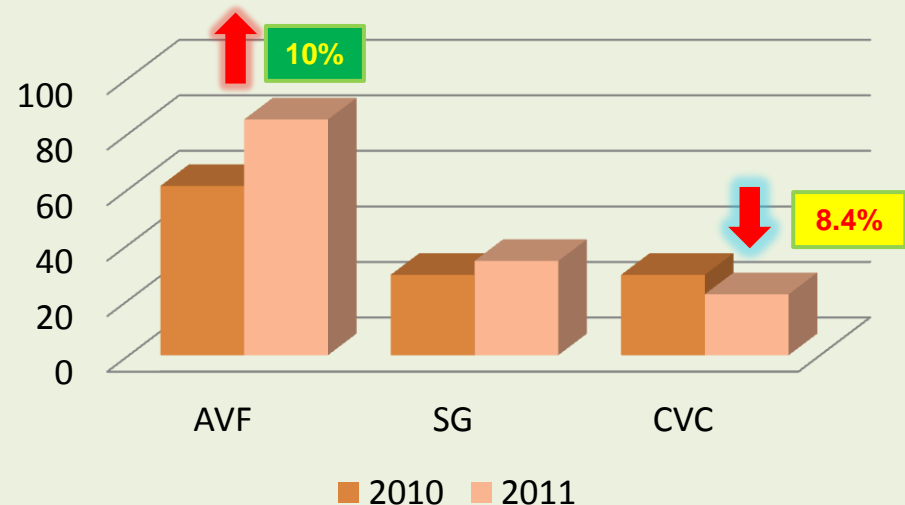
Vascular Access Patency Rate

(*Chi-square Test: Significant at 1% level)		2010	2011	p-value*
¹Primary Patency (PP) Rate	at 3 months	56%	92.6%	P<0.01
	at 6 months	54%	81.5%	P<0.01
	at 12 months	40%	77.8%	P<0.01

¹Primary Patency (PP): defined as the interval from time of access placement to any intervention designed to maintain or reestablish patency or to access thrombosis or the time of measurement of patency



Vascular Access for HD



Conclusions

- This program is effective to upgrade our patient's vascular outcomes towards international benchmark through enhancement of multidisciplinary care.
- Team collaboration is critical to boost up AVF use and to improve vascular outcomes.