MACOVA 2020

These presentations were developed by the respective presenter(s), and the findings, interpretations, and conclusions contained or expressed with them do not necessarily reflect the views of BD. To the extent these presentations relate to specific products, such products should always be used in accordance with the relevant instructions for use and other product documentation. This content should not be copied or distributed without the consent of the copyright holder. For further information, please contact: GMB-EU-MDS@bd.com



Managing the patient with peripheral IV access

Andrew Barton
NIVAS UK Chair
Advanced Nurse Practitioner
Vascular Access & IV Therapy Lead
Frimley Health NHS Foundation Trust



Peripheral IV Access

- Peripheral IV Cannula
- Longer Length PIVC
- Short Midline
- Standard Midline



have a reconstructed using the alleger and parties and in IN THE PARTY OF TH ARREST SANDARA AT AL ARREST.

то реализонного на настоящего DESCRIPTION OF THE PROPERTY OF Control of the territories with the property of the prope ы наприменти в применения в банка в применения в при

PRODUCE CONTRACTOR OF THE ASSESSMENT OF T Management Salaring Service Salaring and Alexandronic Service Salaring and Salaring Service Se and the second of the second s Annual Committee of the Committee of the

Principal and American Committee of the PROPERTY AND ADMINISTRATION OF THE PROPERTY AND ADM was a sectionary transition accounting to the transport to the contract of th Appropriate processes and research

MANAGER SERVICE STREET Management of the control of the con

Printed Street, Salara and Street, and Street, Street,

BOTTO LA PARTIE DA .

FIRST CONSIDERATION IS IV THERAPY REQUIRED?

HAVE ALTERNATIVE POUTES BEEN CONSIDERED AND EXCLUDED?

CONTINUE TREATMENT VIA ALTERNATIVE ROUTE

SEE DECISION TOOL



Vessel Health

Preservation

IPS & NIVAS

Principle State of the State of

restore and restorated the second restorate process and the second second

Planty oparties of memorina activities of their or plants activities investiga-partiliplant, apales research organization areas mengline.

ALEXANDER OF PERSONS ASSESSED.

Seal for any serious papers on the research and the strongs from their research.

VESSEL ASSESSMENT

		AT AMERICAN	DOM:NOT
OWNER	UIIN DUNUT	ABHIOTOPIA ABHIOTOPIA	CONTRACTOR
	Estate -	Projegovensky National Sciences National	ternamay sa restra syrama sarahas ternam pamana
	1	PEGAPARAMAN NATIONALA AUTOM	Memorray or memo symmetric sometric memorra poemorr
Ξ		Projegovorom service, parti- repairements e. repairements e. repairements e. repairements e. repairements	terminal to read a function sometime to re- ting partitions may represent the property received to compare to compare to the compare to compare to the compare to compare to the co
	Taux	uma terpapana uman manasana manasanana manasananan manasananan	Memorina consecutive consecutive programme consecutive
	1000 1000 1000 1000 1000 1000 1000 100	на устануванија и как је грајски и го	Program accounts management program

And the state of t реголоруација на органичницими AND DESCRIPTION OF THE PARTY OF от поставления по рассия на примером на година подотка поточного на уследуеми порточного по tion of the second seco principal region of states and states are supported by Control of the Contro pagentain og mentengarage

The state of the s

- Commence of the second or second of the seco
- ACCOUNT OF THE PARTY OF THE PAR THE RESIDENCE OF THE PARTY OF THE
- Market Street, Street Street, Land Street,

CAMPLE OF A DROPE STATE

Berner Sterve	сохорям самичил.	N
CONTRACTOR OF THE PARTY OF THE	anaman papaga anaman dangan Pas Apr	П
en som	All Principles	ı
ALC: N	лудина	
gates.	100 III	
	III.	١
englagens entertains	LOTTING IN	1
	Demokra	ш
s promount of the second	Newportons.	7
Company of the Compan	Name of the last o	100

RE-EVALUATION OF ACCESS DEVICE

Daily assumed in regular in around the device inaggregation granulog vascal health and comfort for the galleri. The assument absolute continuous surplications and solution the devices in all required to suffice absolute the device in all required to a sufficient surplication.





Market and parent of market and experience semperature and security The second secon

aran majaraj para

чиним поможники черуг маке и укран воле.











Committed To Excellence Working Together Facing The Future



































Cannulation site choice

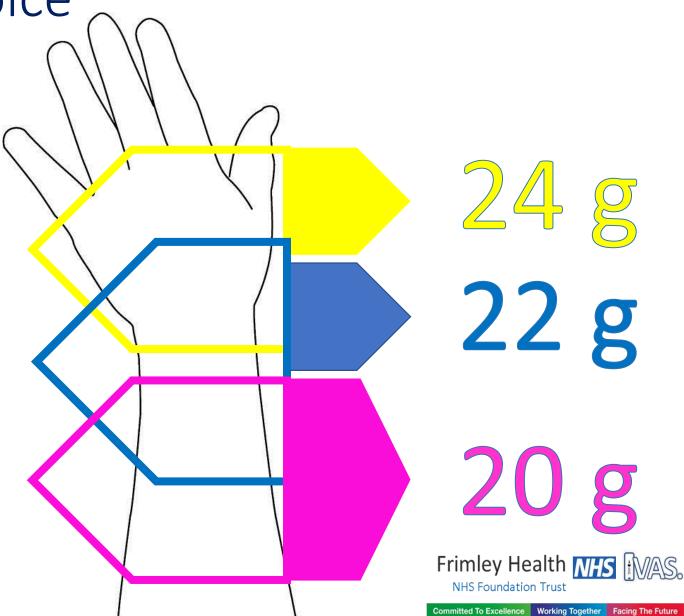
Choose the appropriate site

Priority is vessel health

Smallest cannula possible

As far down the arm/hand

 Joints and points of flexion a last resort



A Guide to Choosing the Correct Cannula for your Patient

		Approximate Flow Rates (I/hr)								
Colour	Common Applications	Size Gauge	Crystalloid	Plasma	Blood					
Orange	Used in theatres or emergency for rapid transfusion of blood or viscous fluids	14G	16.2	14.2	12.9					
Grey	Used in theatres or emergency for rapid transfusion of blood or viscous fluids	16G	14.1	10.9	10.0					
Green	Blood transfusions, parenteral nutrition, stem cell harvesting and cell separation, large volume of fluids	18G	6.1	5.2	3.8					
Pink	Blood transfusions, large volumes of fluids	20G	4.0	2.7	2.5					
Blue	Blood transfusions, most medications and fluids	22G	2.5	1.6	1.4					
Yellow	Medications, short term infusions, fragile veins, children	24G	0.8	0.7	0.5					



Peripheral Cannulation Difficult Vascular Access Guidance



Vein Visible



Vein **Palpable**



Attempt Cannulation



2nd practitioner 2 Failed attempts



5th attempt Refer



No Veins



Consider **Vein location** technology

Refer to IVAS Ext 2668 Bleep 651, 879, 894

Out of Hours NNP Bleep 454 On-Call Anaesthetist via Switch





Use Vein Location Technology

Ultrasound

Veins below 5mm

Infrared

Veins up to 7mm

Vein Stimulation

Enlarges and stabilise peripheral arm veins

Consider local/topical anaesthetic





- Vein Preparation Technology
 - Heat
 - Electricity
 - Hydration
- Vein Location Technology
 - Ultrasound
 - Infrared
 - **Illumination Lights**



Committed To Excellence Working Together Facing The Future

4 Step Approach

Local **Anesthetic**

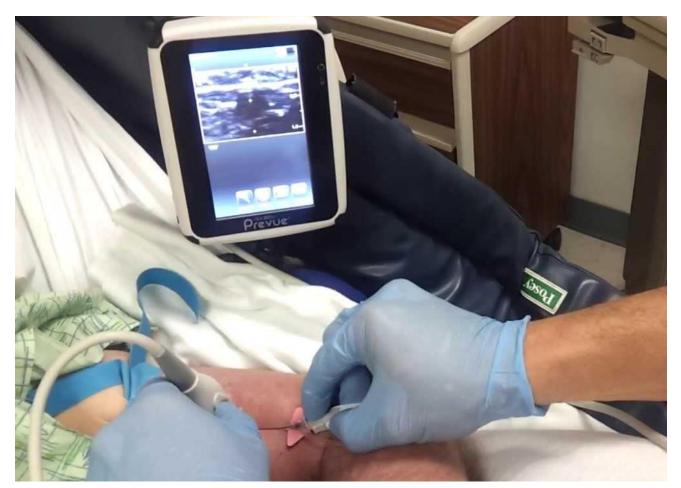
Vein Location **Technology** Strategies for Successful Vascular Access

Patient Distraction

Positioning for comfort



Vein Location Technology









Ultrasound

- First attempt success rates over 95%
- Can reduce waste
- Confidence that cannula is sited in the vessel.
- Less painful and traumatic for the patient.
- Preserves vessels.
- Less complications caused through catheter malposition

Up to 6 wks Up to 29days Sincone PowerGlide Groshong Midline Midline Peripheral Peripheral Ph 5-9 Ph 5-9 only only Power **OPAT** injectable Bolus IV OPAT IV Infusions Blood draw Blood Bolus IV **Products** IV Infusions High flow rates achievable Blood Products

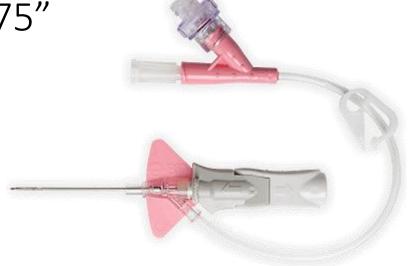
Device selection decision tool





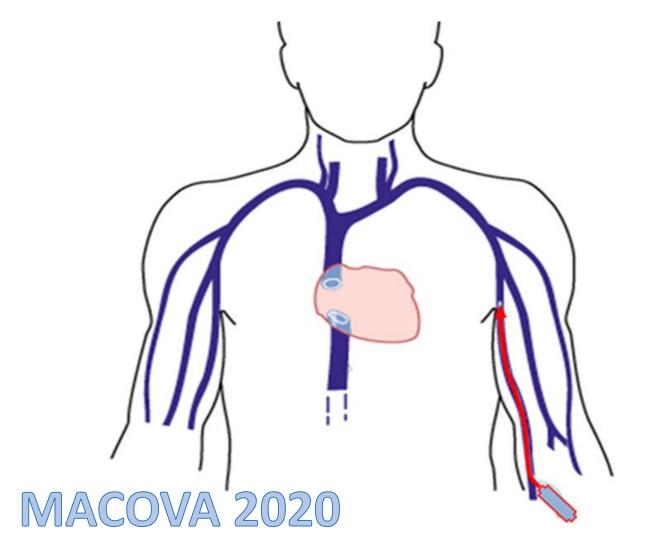
Longer PIVCs

- 75"
- 18 gauge available in 1.25" and 1.75"
- 20 gauge available in 1", 1.25", and 1.75"
- 22 gauge available in 1" and 1.75"





Midline Catheters



- Peripheral catheters
- Long or short
- Tip terminates before the axillary crease
- For IV therapy with pH between 5-9
- Indwell time 4-6 weeks

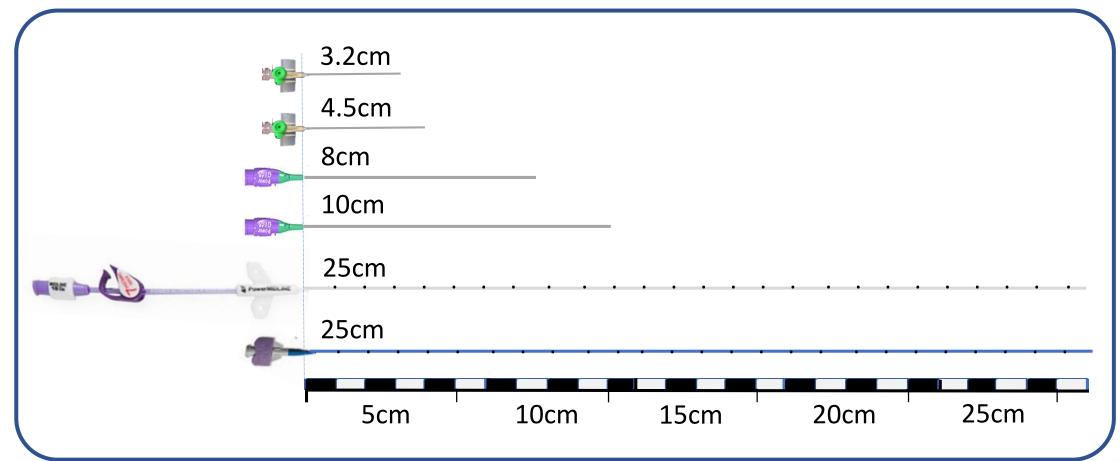


Midline features

- Power Injectable
- Silicone Groshong valve
- Single and double lumen
- 4-6 weeks indwell
- Integrated all in one PowerGlide

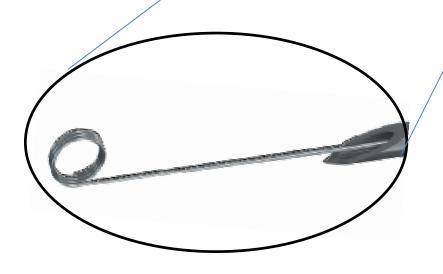


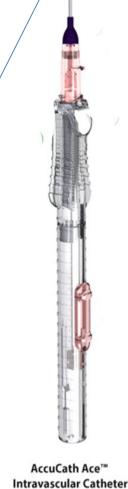
18g Peripheral Catheter Lengths

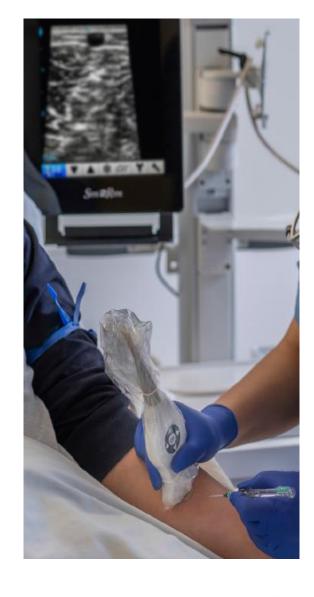


Integrated PIVC

- Long cannula length
- Integrated guide wire
- Curl tip guide wire









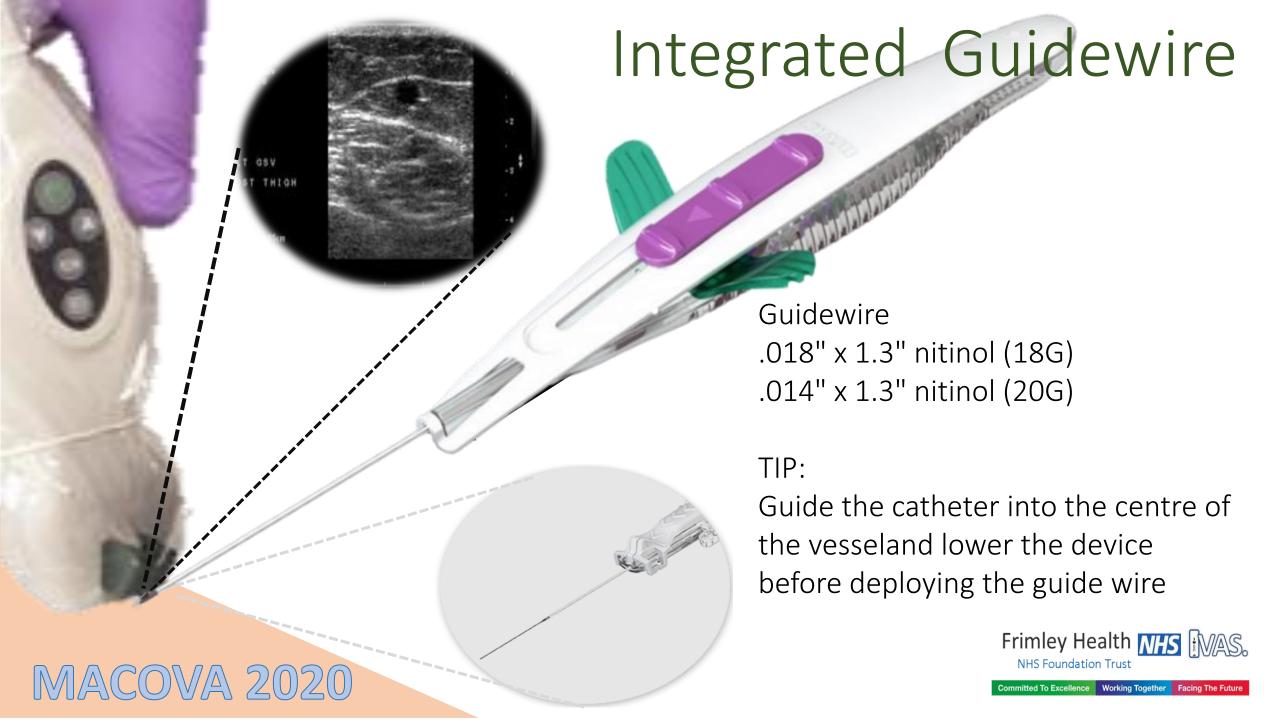
Device Features

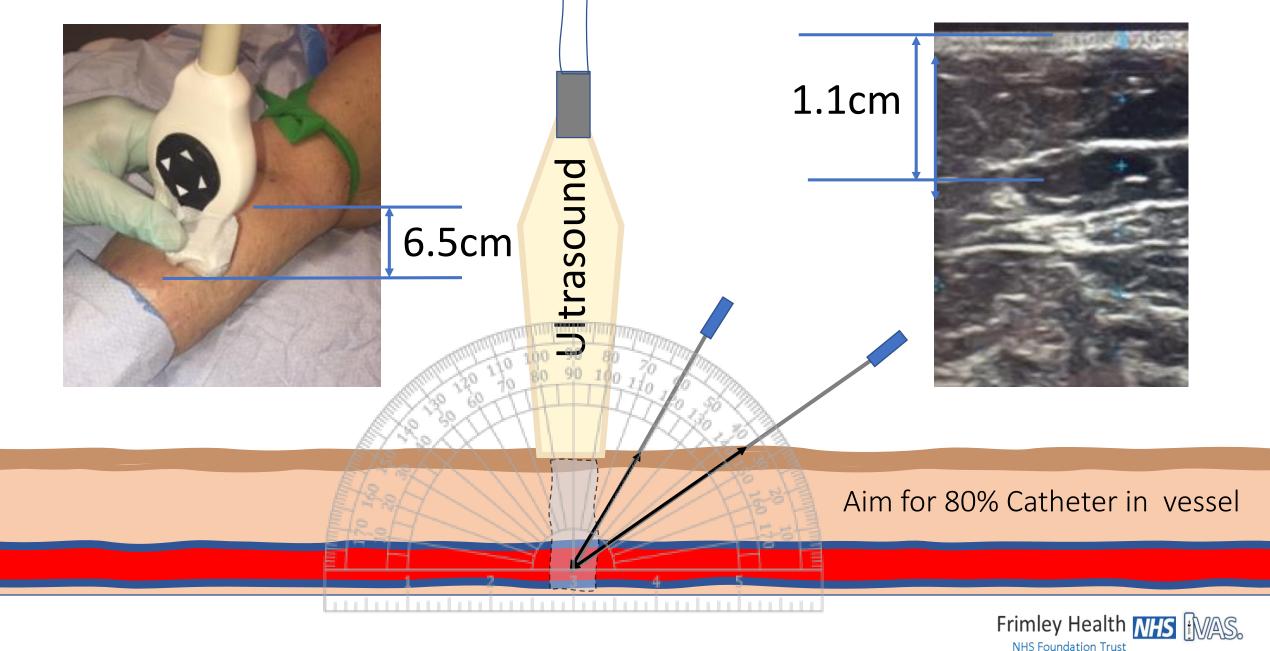


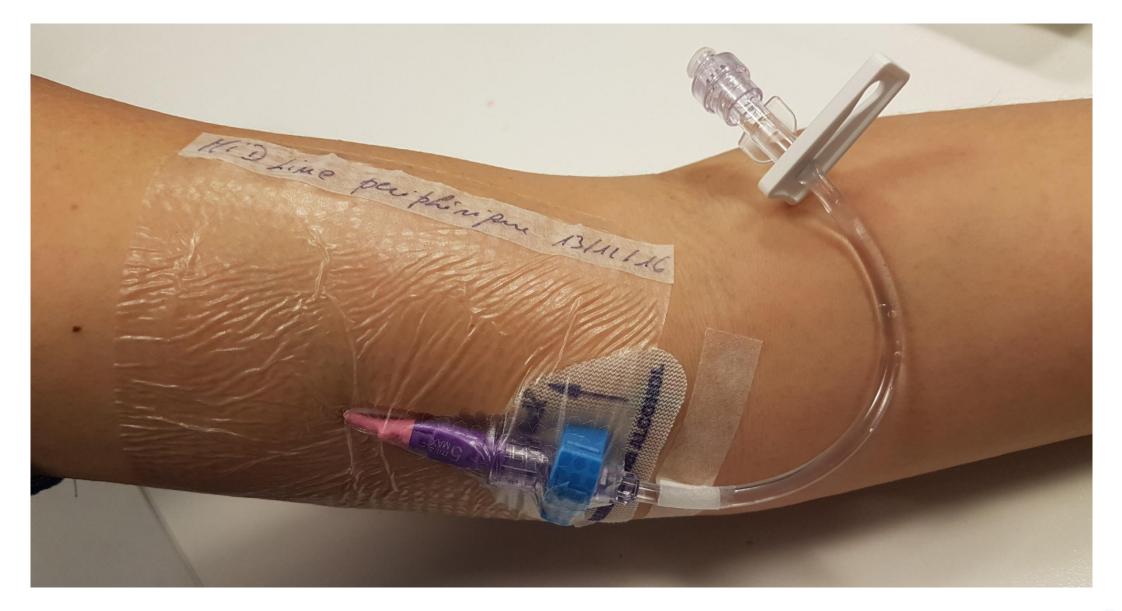


- Power Injectable
- Up to 29 days of access with a single catheter
- An integrated all-in-one placement
- High flow rates
- Long PIV / short midline –
 8cm to 10cm
- More reliable for blood sampling

 Frimley Health NHS MASS.



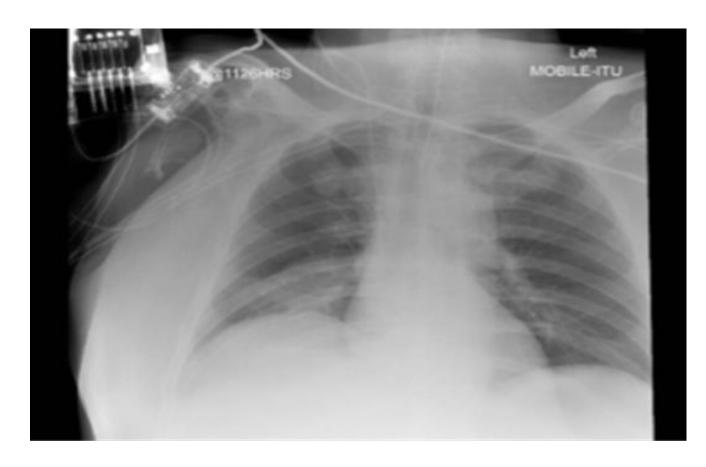












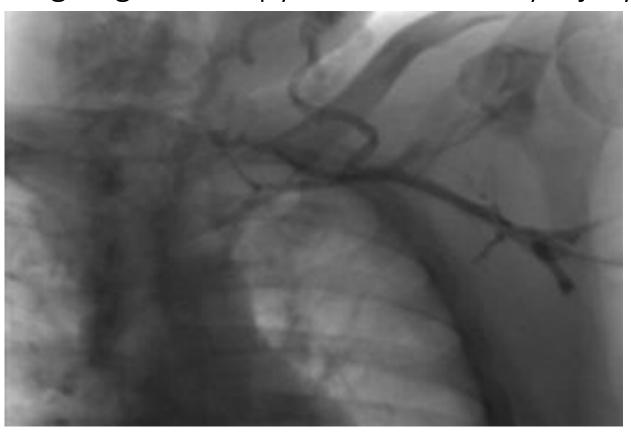
- 52 year old male.
- Traumatic right arm amputated from the shoulder, he also sustained head and right hip trauma
- Admitted to the ICU where a short non-tunnelled CVC was placed to his left IJ – right IJ not viable for CVC

Patient discharged to the surgical ward after 2 month stay in the ICU



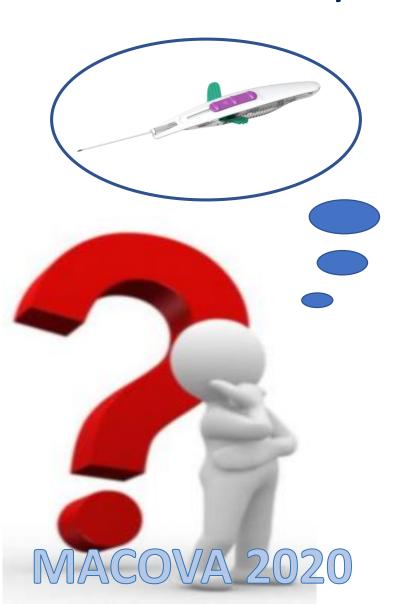


Patient deteriorate on the surgical ward and required vascular access for ongoing IV therapy for acute kidney injury



- Patient had multiple CVC lines in ICU
- Referred for new PICC
- Previously had 2 PICC's sited in the left arm over a 4 week period
- Both PICC's pulled out by mistake one after the other
- Unable to place PICC due to stenosis





Patient deteriorating and needed IV access

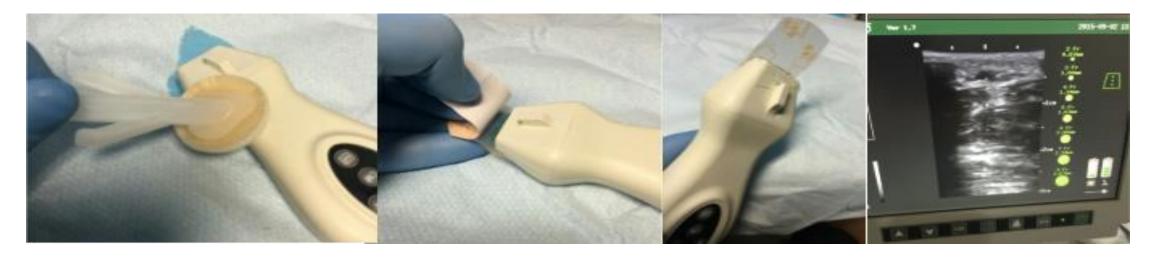
- IV fluids urgently required for fluid balance
- Unable to cannulate peripherally
- Neck CVC attempted unsuccessfully
- Femoral access high risk for infection
- Patient was considered for readmitted to the ITU
- Patient reviewed one final time by vascular access team



 Ultrasound assessment discovered the lower cephalic vein which appeared to be patent and appropriate for an 8cm 18g PowerGlide







Preparing the ultrasound probe tip to be sterile





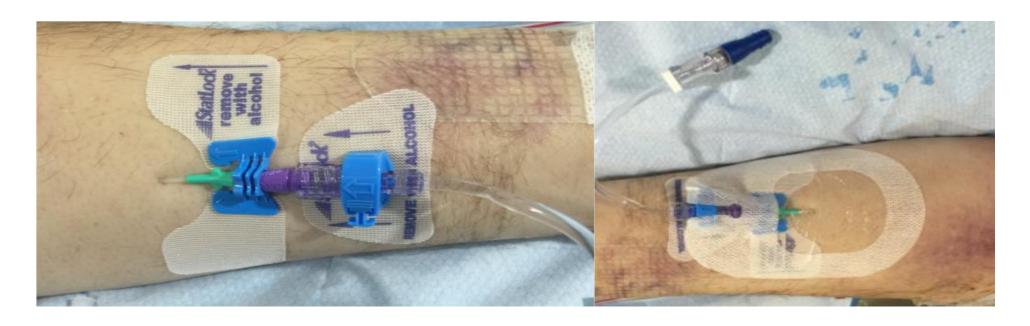
18g 8cm PowerGlide midline inserted into the vessel





- Guidewire successfully deployed
- Catheter aspirated and flushing well





 PowerGlide midline prevented readmission to the ICU and stabilised the patient by providing reliable vascular access.





- 45yr old female with learning difficulties, unable to hyper extend arm for PICC and had 15 PIV attempts
- Required 2 weeks of intravenous antibiotics for aspiration pneumonia
- PowerGlide placed with Ultrasound on first attempt

Catheter Fixation







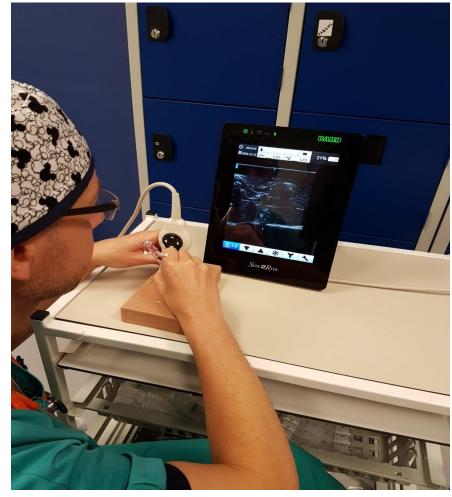


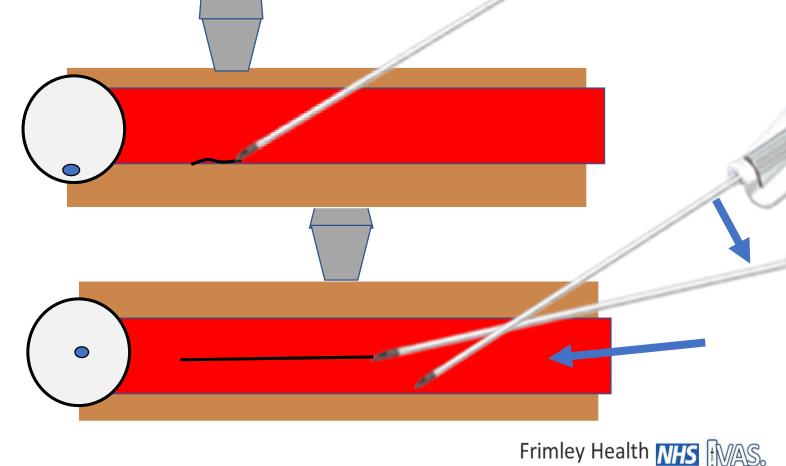
Our Success with PowerGlide

- No complications reported after insertion
- No infections post insertion
- Occlusion rate low less that 10%
- So far the longest required indwell time has been 24 days
- Our insertion success rate 98% on first attempt
- Units will refer patients for PowerGlide as first choice device



Insertion Technique





Considerations

- Therapies not appropriate for a Midline catheter including those therapies requiring central venous access.
- Safe pH drug administration range 9-5
- Use a reliable passive displacement needle free connector
- Ensure a good flushing regime
- Care bundles are key

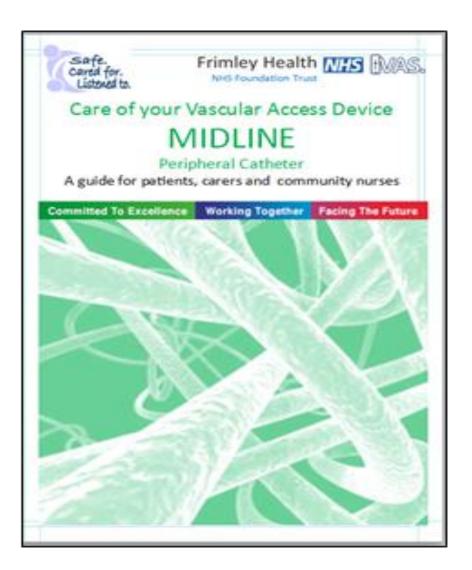


Patient Name:			MIDLINE Insertion Record								
Do8:			Frimley Health NEG RAMA								
ID No:			INTO TOURISHOON ITUSE GOO GOO								
NHS:			Intravenous Vascular Access Services								
Procedure Date:	Tim	e:	Operator:								
Patient Location:			Reason for MIDLINE Line:								
Consent Obtained: Yes/Unable	Action i	f unable:	unable:								
Verbal: Written:											
Procedure explained:											
Allergies:			POWER INJECTABLE	:Yes / No Maximum-5mls/Sec							
Relevant Blood Results:				Micro-Introducer used: Yes/No							
MRSA Status/ICP actions:				Ultrasound used: Yes/No							
Local Anaesthetic used -	- Lidoca	ine 1% 2	mg: Yes / No	Line Aspirated with blood: Yes/No							
				Line Rushed with:							
Sign:											
MIDLINE U	JSED:	Grosh	ong Power	Glide Other							
Midline Gaug	e		Device Le	ngth							
M			Vein Accessed								
$\int_{\mathcal{X}} f(x) dx$		In	sertion Length								
14 11		E	xternal Length	1							
/// 1\\		Guide	wire removed								
R L	Tip	Asep	sis maintained								
440		Chlorhe	exidine Skin Prep used: 1.5ml or 3ml								
Device requested by:			Film Dressing Used:								
Referral documented: Yes/No-	if No why	not?:	Securement device IV extension used:	used:							
Ward nurse advised to please re dressing after 24 hours and appl IV3000 or Tegaderm IV dressing	y a single	_	Insertion Comments:								
MIDLINE Passport given Yes/No			Bleeding:								
Care pathway commenced Yes/I Midline is flushing freely and is safe	No touse. Ye	rs/No	Hematoma: Swelling:								
Operator Name: Signature:											

three his artest title hardware in 187



Committed To Excellence Working Together Facing The Future



Facing The Future

Frimley Health NHS Foundation Trust

PERIPHERAL CANNULA CARE PATHWAY

ONE PATHWAY PER CANNULA

- GLOVES must be worn for peripheral cannulation
- ANTT must be observed
- Chloraprep 1.5ml application must be used to clean the skin prior to Cannulation
- Disposable tourniquets must be used
- · Cannulation of the feet is not allowed
- · VIP should be assessed every 8 hours
- . Indwell time is max 96 hours with a VIP of 0

INSERTION RECORD Signature & designation Skin prep Sterile semi-Date & time Hand hygiene Correct No of Documented Reason for Insertion of competent professional using 2% permeable of insertion before & after PPE used & attempts insertion on inserting cannula Chloraprep transparent IV insertion disposed of (max 2) picture applicator dressing applied Y/N Y/N Y/N Y/N Y/N

Ward:

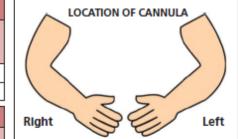
Male / Female

Hospital No:

NHS No:

Date of Birth

M	MAINTENANCE RECORD												
	Date & Time		MP Score	Connector cleaned with 2% chlorhexidine in alcohol (clinical wipe) before use	Dressing dry, intact & adherent (if No, specify actions taken)	Dressing removed	ls cannula still required	Actions taken & justification for cannula to remain in situ	Print and Sign Name				
-		Early		Y / N	Y / N	Y / N / NA	Y / N						
Day		Late		Y / N	Y / N	Y / N / NA	Y / N						
		Night		Y / N	Y / N	Y / N / NA	Y / N						
2		Early		Y / N	Y / N	Y / N / NA	Y / N						
Day		Late		Y / N	Y / N	Y / N / NA	Y / N						
		Night		Y / N	Y / N	Y / N / NA	Y / N						
8		Early		Y / N	Y / N	Y / N / NA	Y / N						
Day		Late		Y / N	Y / N	Y / N / NA	Y / N						
		Night		Y / N	Y / N	Y / N / NA	Y / N						
		Early		Y / N	Y / N	Y / N / NA	Y / N						
y 4		Late		Y / N	Y / N	Y / N / NA	Y / N						
Day		Night		Y / N	Y / N	Y / N / NA	Y / N						
		Early		Y / N	Y / N	Y / N / NA	Y / N						







REMOVE CANNULA AFTER 96 Hours or if the VIP score is 1. If infection suspected send tip for MC&S and swab site

l	Date & time of removal	Reason cannula removed	Signature & designation of competent professional removing cannula

nley Health S Foundation Trust

MIDLINE CATHETER CARE BLINDLE— GROSHONG OR POWERGLIDE

Frimley Health MUS

		G III IE I E I I G II			-			-21 63												NHS	Foun	dation	Trust	III.	~
	ame:					must b													e obse	erved					
K	HS Number:		 Chloraprep 1.5ml application must be used to clean the skinduring dressing change Needle free connectors must be used on all hubs and changed every 7 days or 200 activations The film dressing must be changed after 24hrs and the gauze pad removed then changed every 7 days—document which day the 																						
Н	ospital No:						ng mu	ist be	chang	ed aft	er 24h	irs and	thega	ше р	ad rem	ovedt	hen d	nangeo	dever	/ 7 da	ys—de	ocume	nt whic	h day the	2
E	OB:	Ward:				is on. uld be a	ssess	ed ev	erv 6 t	o 8 ho	urs or	n this d	hart.												
			• Th	e dev	ice sho	uld be	e rem	oved if	no lo	ngern	eguire	1													
	DEVICE:	GROSHONG MID	LINE:	: 3FR 4FR POWERGLIDEMIDLINE: 18G 20G 8CM 10CM										1											
	Insertion date:		e of de												gth of										
Po	werGlide MIDUNE FOR DRUG	catheters can be used in the s ADMINISTARTION WITH PH	ame w BETWE	ray as ENIST	greer to 9.4	n peripi Grosho	herali: na Rhi	cannu ie Mili	ilas and DUNES	i are p are N	ower OT no	injecta weer in	ble. Bl Iectabl	lood d le Ind	an be d well th	irawn t ne: Gre	from E school	ower:	Glide (IINE 6	athet week	ers. M rs—Por	HDUINE weenSi	ES are (ide 79 i	ONLY SUIT	(AE
		DATE:																						-,-	
	Assessmer	nt every 6 to 8 hourly E/L/N	E	П	N	E		N	Е	1	N	E	1	N	Е		N	E		N	Е		N		
_		ual assessment—VIP score:	_	-		-	_		-	-	150	_			_	_		_	-		_	-	- 1.		Ę
		essing in situ—day number:	DAY:			DAY:			DAY:			DAY:			DAY:			DAY:			DAY:				E
		san an intact—if not please																				T		>	7
		ge dressing and document:																						Z	Ì
	Dressing	g dated with insertion date:																						2	3
	Needle free	connectors present on all lumens:																						AND NEEDLE	DAY / CHANGE
	Davica lum	ens all flushing and patent:																						Ü	
M		ctors replaced every 7 days	DAY:			DAY:			DAY:			DAY:			DAY:			DAY:			DAY:			- - -	3
14	ecule free confire	or after 200 activations:				274.1.															Market .			끍	Ų
	Needle-free bung	s cleaned before each use: (2% Chlorhexidine wipe)																						FREE	DKESSING,
	Microbial follower	contamination prevention d (see bulletpoints above):																						8	
	Discuss with t	eam, device still required- if no please remove:																						Ž	3
	IVI line	es labeled with date/time*:																						Ω	7
		urement once per week on -document measurement:			cm			cm			am			cm			am			cm			cm	CONNECTORS	FIXALION DEVICE
		PRINT NAME:																						- VI	F
		sets should be labelle	d wit	h da	ite a	nd ti	me :	stick	ers								-								=
	Date & f	ime of removal	Reas	on fo	or ren	noval				SI	gnati	ure & c	iesigr	iatio	n of co	mpet	ent p	rofes	sions	Iren	iovin	g dev	1ce		H
			T																						

NHS Foundation

Frimley Health

Working Together

Facing The Future

Trust

Committed To Excellence

Thank you MACOVA