



Value Life

Vascular Access  
CT PICC Easy and MaxFlo® Expert



The **safer** and **more efficient**  
solution for CT scan injections

# The complete Vygon CT-rated PICC range

Using IV contrast media in CT examinations improves diagnostic accuracy

## PICC lines in practice

Though the preferred administration route is via a peripheral Intravenous (IV) cannula with powered injectors, in certain patient groups, peripheral IV access is difficult and central access may be the only available route for contrast enhancement.

Where additional peripheral access is not possible, the preferred alternative is to use an existing PICC for contrast media injection. Circumstances such as this would likely occur with patients that have experienced extensive burns, lymphoedema or with patients where there is a need to preserve potential sites for future arteriovenous fistula formation.

## Advantage of CT-rated PICC lines

- **Preserves peripheral access** with no need to cannulate the patient several times causing pain and damaging peripheral veins
- **Prevents complications** due to the avoidance of multiple and unsuccessful IV cannula placement attempts<sup>1</sup>
- **Offer reliable IV access** where peripheral access is not possible.

## Flow rate

- The primary consideration in any angiography or CT procedure
- Depends on the nature of the disease/organ and the type of procedure.

CT-rated PICC lines that allow flow rates up to 6 or 7ml/s increase the number of organs that can be examined using a CT procedure.

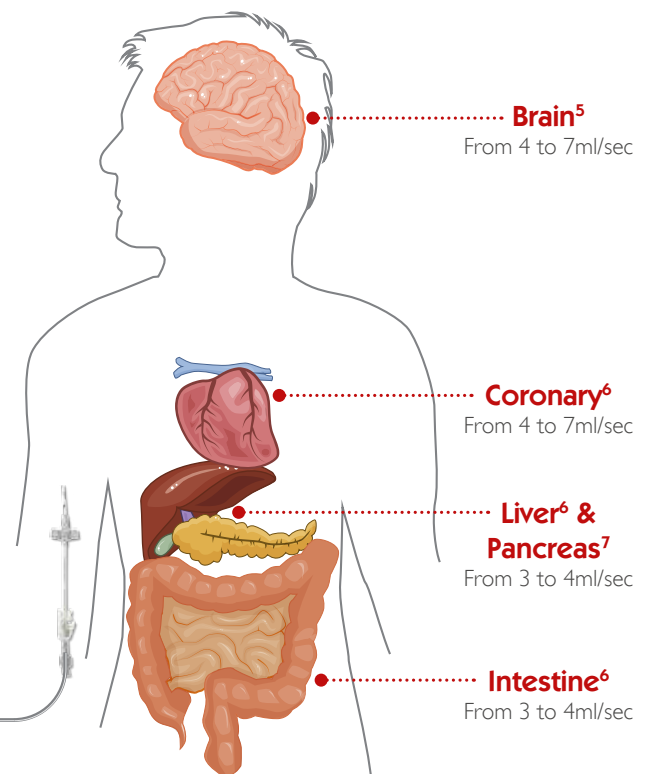
Higher flow rates up to 6ml/s or greater are frequently required for larger patients, and in general for shorter acquisitions.<sup>2,3</sup>

## Injection pressure

- New generations of CT contrast media injectors with pressure limit pre-settings of 325 PSI.<sup>4</sup>

No need to change the injector pre-settings with PICCs that withstand 325 PSI, offering improved patient safety.

Injector pre-set to 325 PSI





## The next generation of 325 PSI scan injector<sup>4</sup>

Safer for the patient, safer for the radiology technician

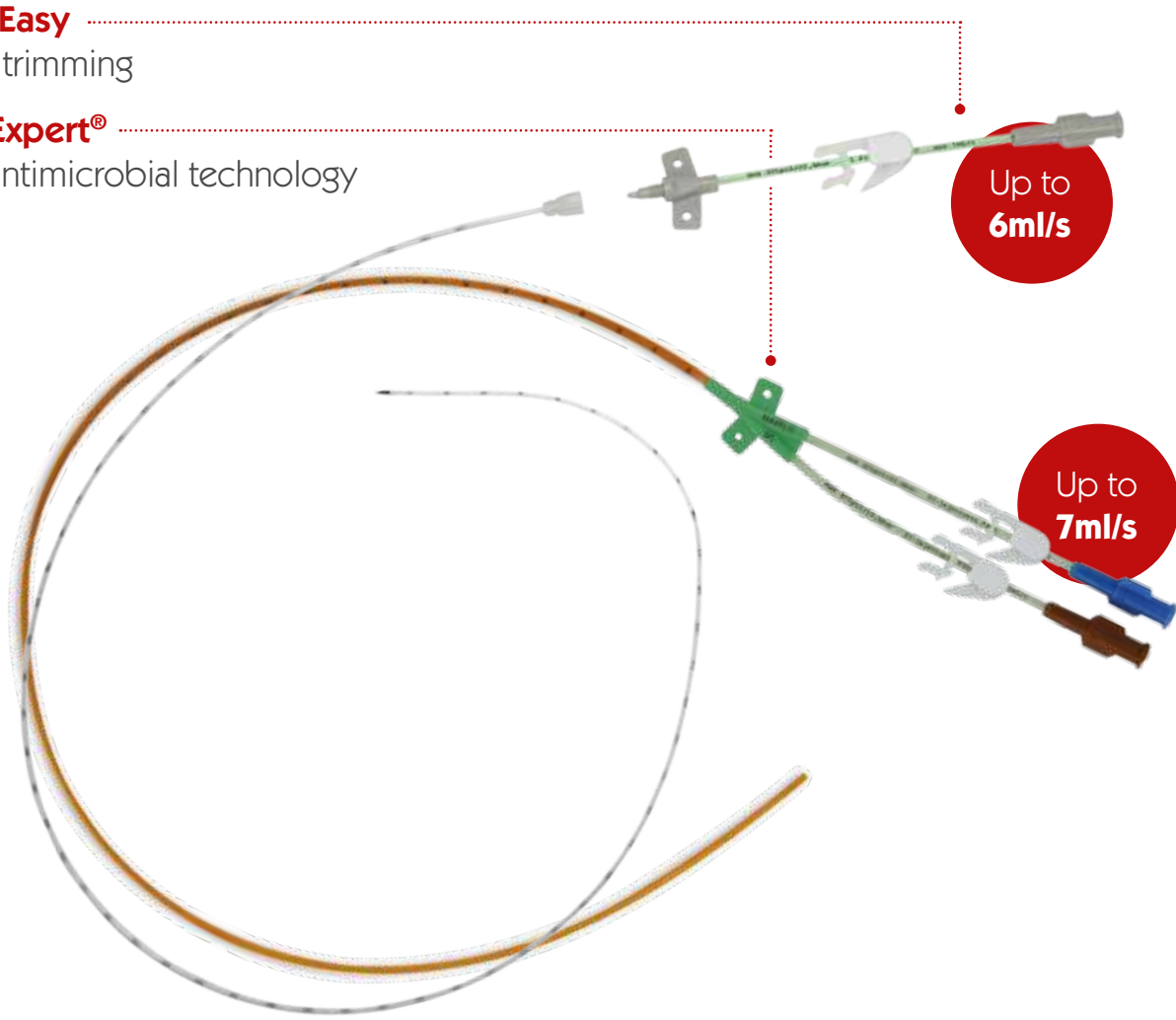
Produces a high flow rate which in turn creates better quality images and tissue visualisation

### CT PICC Easy

Proximal trimming

### MaxFlo Expert<sup>®</sup>

Agion<sup>®</sup> antimicrobial technology



### Technical requirements for contrast media delivery

Parameters	CT	MRI
Flow rates	0.1-7ml/s	0.1-7ml/s
Injector pressure limit	325 PSI	325 PSI

Source: ECRI Report 2009 : Injectors, Contrast Media, Angiography, CT

## CT PICC Easy

Vygon Code	NHSSC	Size Fr	Ext. Ø mm	Int. Ø mm	Maximum indicated power injection flow rate	Maximum pressure
V021292213	TBC	3	1.0	0.6	1ml/s	325 PSI (22.4bar)
V021292214	TBC	4	1.35	0.9	5ml/s	325 PSI (22.4bar)
V021292215	TBC	5	1.67	1.1	6ml/s	325 PSI (22.4bar)

### Micro Seldinger kit

1 x totally radiopaque catheter (60cm long) in biostable polyurethane with temporary wings  
 1 x metallic stylet to make the catheter more rigid and thus make insertion easier  
 1 x «T» proximal connector: The lateral port of the T connector can be used to inject saline solution  
 1 x detachable extension line with a Robert clamp  
 1 x safety introducer needle 21G x 7cm  
 1 x Nitinol guidewire with thumb-feed advancer Ø 0.46mm

1 x peelable sheath + dilator  
 1 x Luer slip syringe 10ml  
 1 x slide clamp  
 1 x measuring tape  
 1 x Grip-Lok®, securement device  
 1 x bionector  
 1 x safety scalpel



## MaxFlo Expert®

Vygon code	NHSSC	Description	Size Fr	Catheter information			Flow rate gravity ml/min			CT max injection rate	Introducer needle		MST information		Unit of sale
				No. of lumens	OD mm	Length cm	1	2	3		Size G	Length mm	Size Fr	Length mm	
8394.14	FSU457	Tapered	4	1	1.35	55	19	-	-	5ml/s 325 PSI	21	70	4.5	70	10
8394.15	FSU460	Non-tapered	5	1	1.67	55	28	-	-	6ml/s 325 PSI	21	70	5.5	70	10
8394.16	FSU459	Non-tapered	6	1	2.0	55	64	-	-	7ml/s 325 PSI	21	70	6.5	70	10
8394.25	FSU458	Tapered	5	2	1.67	55	9	9	-	5ml/s 325 PSI	21	70	5.5	70	10
8394.206	FSU461	Non-tapered	6	2	2.0	55	14	14	-	5ml/s 325 PSI	21	70	6.5	70	10
8394.36	FSU462	Tapered	6	3	2.0	55	10	4	4	5ml/s 325 PSI	21	70	6.5	70	10
580410	FSU463	MaxFlo Grip-Lok™	-	-	-	-	-	-	-	-	-	-	-	-	50

### Tray description

1 x totally radiopaque antimicrobial catheter (55cm long) in biostable polyurethane  
 1 x «T» proximal connector: The lateral port of the T connector can be used to inject saline solution  
 1 x safety introducer needle 21G x 7cm  
 1 x Nitinol guidewire with thumb-feed advancer; Ø 0.46mm  
 1 x peelable sheath

1 x safety scalpel  
 1 x 1, 2 or 3 Bionector  
 1 x Grip-Lok®, securement device  
 1 x Luer slip syringe 10ml  
 1 x measuring tape

## Extended range available

Vygon supply an extended range of MaxFlo CT-rated PICC lines that include 75cm and 135cm guidewires. For further details, please contact your local sales representative.

### References

1. A A O Plumb et al, The use of central venous catheters for intravenous contrast injection for CT examinations, The British Journal of Radiology, 84 (2011), 197-203
2. ACR - ASNR - SPR Practice parameter for the performance and interpretation of cervicocerebral computed tomography angiography (CTA); Revised 2015 American College of Radiology
3. Abbara S et al. SCCT guidelines for performance of coronary computed tomographic angiography: a report of the Society of Cardiovascular Computed Tomography Guidelines Committee. Journal of Cardiovascular Computed Tomography (2009) 3, 190-204
4. Contrast media injector with 325 PSI pressure limit : Medrad Spectris; Medrad Stellant D and 5x; Guerbet Optivantage DH
5. MRI Multi-modal CT scanning in the evaluation of cerebrovascular disease patients Vol4, No 3 (June 2014) Saba L et al.
6. Guide pratique d'imagerie diagnostique à l'usage des médecins radiologues (diagnosis imaging practical guide for radiologist), french society of radiology, updated 03/2013
7. Kandel S et al. Whole-organ perfusion of the pancreas using dynamic volume CT in patients with primary pancreas carcinoma: acquisition technique, post-processing and initial results Eur Radiol. 2009 Nov;19(11):2641-6

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