

New perspectives for more therapeutic options

GamCath™ Triple HighFlow catheter

The gold standard for a safe feeling



Innovative lumen design

In conventional triple lumen catheters both arterial and venous lumen are the same size. During dialysis a negative pressure is placed in the arterial lumen, whereas a positive pressure is obtained in the venous lumen. Both pressures add up at the septum and result in a deformation: the septum distorts towards the arterial lumen. This, in turn, causes the arterial lumen to become smaller and thereby reduces the effective blood flow.

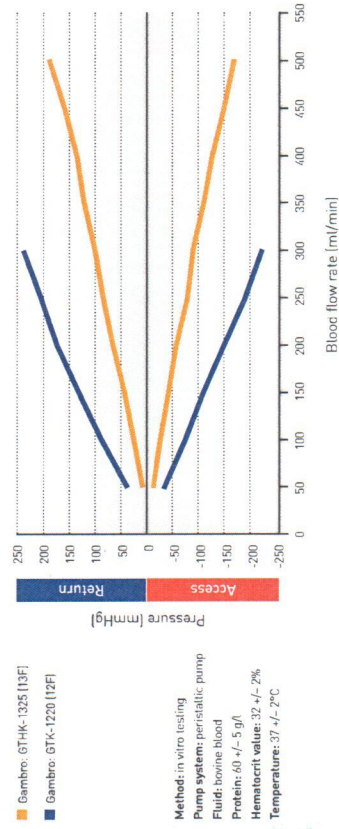
The new Triple HighFlow catheter is designed with an arterial lumen which is about 20% larger than the venous lumen. This improved lumen design provides for an optimized surface-to-volume ratio and thus allows for more desirable blood flow rates.¹

Improved efficiency and safety

In comparison, the new Triple HighFlow catheters demonstrate considerably improved blood flow rates. This, in turn, usually leads to more therapeutic safety, fewer catheter changes and prolonged catheterization times.

The third lumen with optimized placement in design provides even more flexibility of use.

Comparison data



HighFlow-tip for less clotting

Clinical observations indicate that conventional catheters with side-holes have a considerably higher risk of clotting* – one of the most frequent complications in catheter application. In line with this statement, Gambro designed its latest triple lumen catheter without sideholes, thus with a HighFlow-tip providing a significant advantage that helps minimize the risk of clotting.

Safety through design

Manufacturing critical components such as luer-lock connectors and clamps to resist material fatigue, demands a high degree of development competencies and product expertise.

With the invention of the safety clamp, Gambro set a milestone in catheter technology. The patented original clamp is also applied to the Triple HighFlow catheter. Inserts provide secure clamping without slipping. Priming volumes are imprinted on these inserts to allow for a precise lock dosing.

The catheter's seamless hub design allows for a smooth optimal flow path reducing the potential for blood turbulence. A significant detail which helps reduce the risk of clotting.

Intelligent material composition

Carefully selected material coupled with superior design have given Triple HighFlow catheters improved conditions for caregivers and patients. Placement flexibility and safety are increased thanks to the thermosensitive material, which also enables tortuous vessel routes. After insertion, the material softens minimizing vessel trauma and offering higher patient comfort. The correct catheter position can be easily checked after insertion thanks to the catheter's MRI and X-ray compatibility.



Four benefits for more safety

- Innovative lumen design for more favorable flow rates
- HighFlow-tip without sideholes for less clotting
- Seamless hub design for flow rates without turbulence
- Thermosensitive material for more placement flexibility and increased patient comfort

Ordering information

GamCath Triple HighFlow catheter kits

Product code	Ordering number	OD (F)	Implantation length (mm)	Material	Details	Units per box
GTHK-1315	115100	13	150	thermosensitive PUR		5
GTHK-1317,5	115101	13	175	thermosensitive PUR		5
GTHK-1320	115102	13	200	thermosensitive PUR		5
GTHK-1325	115103	13	250	thermosensitive PUR		5
GTHK-1315J	115104	13	150	thermosensitive PUR	curved	5
GTHK-1317,5J	115105	13	175	thermosensitive PUR	curved	5
GTHK-1320J	115106	13	200	thermosensitive PUR	curved	5

Kit contains: (1) catheter with inner dilator, (1) introducer needle GPN-177, (1) calibrated guidewire with J-tip GGW-3270J/GGW-3290J for GTHK-1325, (1) dilator 13F x 150 mm, (3) injection caps GIC-100, (1) wound dressing

References

- 1 Godantino et al, Dipartimento di Ingegneria Politecnica di Milano, Italy: Modular and comparative CFD catheter analysis; data on file - available upon request.
- 2 Zbyut J, Twardowski, Harold L Moore, University of Missouri, Dialysis Clinic Incorporated, Colombia, Missouri, USA. Side holes at the tip of chronic hemodialysis catheters are harmful. The Journal of Vascular Access 2001; 2: 8-16

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Material not for use in the US.

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The rounded shape of this innovative lumen design helps reduce thrombus formation. Another feature of the innovative design creates an optimized surface-to-volume ratio which allows for better blood flow rates.

