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First dutch experience of the accurate neo self-expanding supra-annular valve for valve-in-valve transcatheter aortic valve implantation

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We describe the first two cases of valve-in-valve (ViV) transcatheter aortic valve implantation (TAVI) using Accurate Neo device in the Netherlands.

A 73-year-old man underwent transfemoral ViV-TAVI for severe stenosis in his 25-mm Carpentier-Edwards Perimount bioprosthesis. After balloon predilatation, a medium-size Accurate Neo was advanced to the bioprosthetic annulus. First, its upper part was released with the upper crowns positioned below the superior margin of the pre-existing bioprosthesis (Fig. 1a; [1]). Next, the device was deployed by releasing the lower crowns without ventricular pacing (Movie-1). The results were excellent.

A 79-year-old man underwent transfemoral ViV-TAVI for severe regurgitation of his 27-mm Mosaic bioprosthesis. A small-size Accurate Neo was deployed with its upper crowns positioned along the eyelets of the bioprosthesis (Fig. 1b). After balloon postdilatation, a paravalvular leak was reduced to trace.

Accurate Neo, a self-expanding supra-annular valve, has the advantages of improved ViV haemodynamics and topdown deployment without pacing. However, it is non-repositionable.

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Fig. 1 a Positioning of an Accurate Neo device inside a Carpentier-Edwards Perimount aortic bioprosthesis with its upper crowns sitting just below the superior margin of the bioprosthesis (arrows). b Positioning of an Accurate Neo device inside a Mosaic aortic bioprosthesis with its upper crowns positioned along with the eyelets of the bioprosthesis (arrows)



