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Following the research – update on the latest developments, from access site closure, to valve-in-valve transcatheter aortic valve implantation, to drug-coated balloons

t seems every week there is a new trial announced or follow-up data from an ongoing one, or perhaps it is a new technique or device that you've heard of and are interested in checking out. You could wait for the national and international meetings. You could wait even longer for an update of one of the specialised guidelines, or you can read it here, twice a month, in our Journal – with specially chosen articles, so you can remain up to date!

Bailout MANTA for transfemoral TAVI

Oliver Dumpies, Mohamed Abdel-Wahab and colleagues evaluate the efficacy and safety of using the MANTA, a large-bore plug-based device, for bailout access site closure after ProGlide failure during transfemoral TAVI. Although safe, operator experience was crucial to successful use of the current-generation device.

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ACURATE vs Evolut for valve-in-valve TAVI

Won-Keun Kim, Tobias Rheude and colleagues compare patients who underwent transfemoral valve-in-valve TAVI for severe structural valve degeneration using either the Evolut R/PRO/PRO+ or the ACURATE *neo*/neo2 valves. Although procedural outcomes were similar, device success was tied to the true inner diameter dimensions. See page e363

Biological differences in paclitaxeland sirolimus-coated balloons

In an animal study comparing the biological and histological drug efficacy of the currently available drug-coated balloons, **Kazuki Aihara, Gaku Nakazawa and colleagues** demonstrate that paclitaxelcoated balloons might have higher efficacy and lower drug concentrations in the distal skeletal muscles than the MagicTouch sirolimus-coated balloon.

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Vascular closure algorithm for transfemoral TAVI

Liesbeth Rosseel, Ole De Backer and colleagues describe the novel, stepwise MultiCLOSE vascular closure algorithm, which involves the reinsertion of a 6-8 Fr sheath following an initial closure with one or two suture-based vascular closure devices. The algorithm allows for an easy, safe, efficacious and durable vascular closure after transfemoral TAVI with multiple levels of safety nets, resulting in a major vascular complication rate <1%.

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Redo-TAVI with ACURATE neo2 in SAPIEN 3

David Meier, Janarthanan Sathananthan and colleagues explore the potential of the ACURATE platform in the treatment of failed balloon-expandable valves. In assessing transcatheter heart valve performance, neoskirt height and expansion of the ACURATE platform inside a SAPIEN 3 – compared to redo-TAVI with a SAPIEN inside a SAPIEN – they found favourable hydrodynamic outcomes and minimal pinwheeling with the ACURATE in SAPIEN combinations.

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