

2018 ESC/EACTS Guidelines on myocardial revascularization - Supplementary Data

The Task Force on myocardial revascularization of the European Society of Cardiology (ESC) and European Association for Cardio-Thoracic Surgery (EACTS)

Developed with the special contribution of the European Association for Percutaneous Cardiovascular Interventions (EAPCI)

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Supplementary Table 6 CE-approved new-generation drug-eluting stents recommended for clinical use based on randomized trials with a primary clinical endpoint (in alphabetical order)

DES	Stent platform	Polymer coating	Drug	References
Based on durable polymer coatings				
Promus element	Platinum–chrome	PBMA and PVDF-HFP	Everolimus	15,16
Resolute	Cobalt–chrome	PBMA, PHMA, PVP, and PVA	Zotarolimus	16–18
Xience	Cobalt–chrome	PBMA and PVDF-HFP	Everolimus	19–21
EluNIR (BioNIR)	Cobalt–chrome	PBMA and TSPCU	Ridaforolimus	22
Based on biodegradable polymer coatings				
Biomatrix	Stainless steel	PDLLA	Biolimus A9	23,24
Nobori	Stainless steel	PDLLA	Biolimus A9	25–27
Orsiro	Cobalt–chrome	PLLA	Sirolimus	28,29
Synergy	Platinum–chrome	PLGA	Everolimus	29
Ultimaster	Stainless steel	PDLLA/PCL	Sirolimus	30
Yukon Choice PC	Stainless steel	PDLLA	Sirolimus	31
Polymer-free				
BioFreedom	Stainless steel	–	Biolimus A9	32
Yukon Choice PF	Stainless steel	–	Sirolimus	33

DES = drug-eluting stent; PBMA = poly n-butyl methacrylate; PC = polymer-coated; PDLLA = poly(D,L)-lactic acid; PDLLA/PCL = poly (D,L)-lactide-co-caprolactone; PF = polymer-free; PHMA = polyhexyl methacrylate; PLGA = poly(d,l-lactide-co-glycolide); PLLA = poly-L-lactic acid; PVA = polyvinyl acetate; PVDF-HFP = poly(vinylidene fluoride-cohexafluoropropylene); PVP = polyvinyl pyrrolidone; TSPCU = thermoplastic silicone-polycarbonate-urethane.

Supplementary Table 7 Overview of CE-marked bioresorbable scaffolds

Commercial name	Manufacturer	Backbone material	Coating material	Device thickness	Drug release	Drug load	Duration of drug release	Bioresorption in pre-clinical swine models	Year of CE-mark approval	Year of FDA approval	Year of PMDA (Japan) approval
ABSORB BVS 1.1	Abbott Vascular	PLLA	PDLLA	156 μm	Everolimus	76–308 $\mu\text{g}/\text{stent}$	3 months	36 months	2011	2016	2016
DESolve (+ DESolve 100/ DESolve Cx/ DESolve NXT)	Elixir Medical	PLLA	PLLA	100–150 μm	Novolimus	NA	3 months	24 months	2014	NA	NA
ART Pure	ART	PDLLA	NA	170 μm	No drug elution	NA	NA	24 months	2015	NA	NA
Magmaris	Biotronik	Magnesium alloy	PLLA	150 μm	Sirolimus	1.4 $\mu\text{g}/\text{mm}^2$	3 months	9 - 12 months	2016	NA	NA
Fantom	Reva	PTD-PC	PTD-PC	125 μm	Sirolimus	115 μg	NA	<3 years	2017	NA	NA

BVS = bioresorbable vascular scaffold; FDA = US Food and Drug Administration; NA = not available; PDLLA = poly(D,L)-lactic acid; PLLA = poly-L-lactic acid; PMDA = Pharmaceuticals and Medical Devices Agency; PTD-PC = poly-tyrosine-derived polycarbonate.