

VIEWPOINT

# Public Health Impact of the Centers for Medicare and Medicaid Services Decision on Pass-Through Add-On Payments for Drug-Coated Balloons



## A Call to Action

Mehdi H. Shishehbor, DO, MPH, PhD,<sup>a</sup> Michael R. Jaff, DO,<sup>b</sup> Joshua A. Beckman, MD,<sup>c</sup> Sanjay Misra, MD,<sup>d</sup> Peter A. Schneider, MD,<sup>e</sup> Robert Lookstein, MD,<sup>f</sup> Vikram S. Kashyap, MD,<sup>g</sup> Herbert D. Aronow, MD, MPH,<sup>h</sup> W. Schuyler Jones, MD,<sup>i</sup> Christopher J. White, MD<sup>j</sup>

### ABSTRACT

On Wednesday, November 1, 2017, the Centers for Medicare and Medicaid Services (CMS) made a public decision to end the transitional pass-through add-on payment for drug-coated balloons beginning January 1, 2018, without creating a new ambulatory payment classification rate for these devices. In this Viewpoint, the authors highlight the disconnect between the CMS's decision not to create a new ambulatory payment classification category for drug-coated balloons despite demonstrated clinical superiority. The authors believe this decision is more in line with a rigid fee-for-service payment system than a value-based system that encourages quality over quantity, and disadvantages both the elderly and the poor. They call on all who advocate for patients with peripheral artery disease to action, encouraging their engagement on CMS decisions regarding payment. (J Am Coll Cardiol Intv 2018;11:496-9) © 2018 by the American College of Cardiology Foundation.

On Wednesday, November 1, 2017, the Centers for Medicare and Medicaid Services (CMS) made a public decision to end the transitional pass-through (TPT) add-on payment for drug-coated balloons (DCBs) beginning January 1, 2018, without creating a new ambulatory payment classification (APC) rate for these devices (1). The outpatient hospital TPT add-on payment program is

From the <sup>a</sup>Department of Cardiovascular Medicine, Harrington Heart & Vascular Institute, University Hospitals, Cleveland, Ohio; <sup>b</sup>Department of Vascular Medicine, Newton-Wellesley Hospital, Newton, Massachusetts; <sup>c</sup>Department of Vascular Medicine, Vanderbilt University Medical Center, Nashville, Tennessee; <sup>d</sup>Department of Radiology, Mayo Clinic, Rochester, Minnesota; <sup>e</sup>Department of Vascular Surgery, Kaiser Permanente Hospital, Oahu, Hawaii; <sup>f</sup>Department of Radiology, Mount Sinai Health System, New York, New York; <sup>g</sup>Department of Vascular Surgery, Harrington Heart & Vascular Institute, University Hospitals, Cleveland, Ohio; <sup>h</sup>Department of Cardiovascular Medicine, Lifespan Cardiovascular Institute, Providence, Rhode Island; <sup>i</sup>Department of Cardiovascular Medicine, Duke University and Duke Clinical Research Institute, Durham, North Carolina; and the <sup>j</sup>Department of Cardiovascular Medicine, Ochsner Medical Center, New Orleans, Louisiana. Dr. Shishehbor has served as a consultant for Abbot Vascular, Medtronic, Boston Scientific, and Philips. Dr. Jaff has served as a noncompensated advisor to Abbott, Boston Scientific, Cordis, and Medtronic; consultant for Micell, Philips/Volcano, Venarum, and Vactronix; and is an equity investor in PQ Bypass, Primacea, Vascular Therapies, Embolitech, and Sano V. Dr. Beckman has served as a consultant for Aralez, AstraZeneca, Bristol-Myers Squibb, Janssen, and Sanofi; has served on the data safety and monitoring board for Bayer; owns equity in EMX and Janacare; and has served on the advisory board for VIVA. Dr. Misra has received research grants from the National Institutes of Health (RO1 grant nos. HL098967 and DK 107870) and Boehringer Ingersoll; and has served as the data safety and monitoring board chair for Cordis. Dr. Schneider has received modest royalty from Cook Medical; and has served as the chief medical officer for and is a cofounder of Cagent and Intact Vascular. Dr. Lookstein has served as a consultant for Boston Scientific and Medtronic. Dr. Schuyler Jones has received consulting honoraria from Janssen Pharmaceuticals, Bayer, Bristol-Myers Squibb, Pfizer (all small, <\$10k); research grants from the Agency for Healthcare Research and Quality, the Doris Duke Charitable Foundation, Medtronic, and the Patient-Centered Outcomes Research Institute. All other authors have reported that they have no relationships relevant to the contents of this paper to disclose.

Manuscript received December 21, 2017; revised manuscript received January 2, 2018, accepted January 2, 2018.

designed to support patient access to new technologies that meet stringent approval criteria regarding clinical effectiveness and that are not included in the existing APC rates. By offering an “add-on” payment, CMS has the opportunity to facilitate access to new and innovative devices that are too new to be covered in existing payments while CMS collects data on the costs of the technology to hospitals (2). After sufficient cost data has been collected, a process that typically requires 2 to 3 years, a decision can be made to incorporate the cost of these devices into a new APC, if applicable. DCBs became commercially available in February 2015. In April 2015, the hospital outpatient TPT add-on payment was initiated and in October 2015 inpatient new technology add-on payments (NTAPs) for DCB became effective.

CMS should be applauded for approving additional DCB coverage through NTAPs and TPT add-on payments, recognizing the incremental clinical benefits afforded by DCB compared with traditional uncoated angioplasty for patients with peripheral artery disease (PAD). This decision enabled thousands of patients to be treated with the most clinically effective technology available for reducing lifestyle limiting ambulatory symptoms and reducing the likelihood of limb loss. However, in the calendar year 2018 Outpatient Prospective Payment System (OPPS) Final Rule (effective January 1, 2018), CMS made the determination to end TPT payments and NTAPs and instead package DCB device costs into the currently available payment for uncoated balloon angioplasty. The decision to neither create a new APC category nor assign DCB angioplasty a more appropriate APC category surprised professional societies, physicians, public policy organizations, and medical centers who argued against doing so during the 2018 OPPS Proposed Rule Open Comment Period, out of concern over unintended patient consequences. Furthermore, there is an extensive body of clinical trial evidence showing the clinical superiority of femoropopliteal DCB versus uncoated balloon angioplasty. These studies include 3 large randomized controlled trials and a number of comparative analyses that confirmed the cost effectiveness of DCB in both the United States and Europe (3-9).

In this Viewpoint, we highlight the disconnect between CMS’s decision not to create a new APC category for DCBs despite demonstrated clinical superiority. We believe this decision is more in line with a rigid fee-for-service payment system than a value-based system that encourages quality over quantity, and disadvantages both the elderly and the poor. We call on all who advocate for patients with

PAD to action, encouraging their engagement on CMS decisions regarding payment.

Although decisions regarding TPT add-on payments are based on rigorous pre-specified clinical and cost criteria and are clearly outlined by CMS, the process for assigning procedures to payment categories after expiration of add-on payments does not incorporate value-based judgments. Instead, the fate of new technology reimbursement is left to a system that is based on the “principal of averaging,” which has inherent drawbacks. In the CY2018 Final Outpatient Hospital Rule, the CMS response to stakeholder requests for a separate procedure code was as follows: “We believe that procedures with which the drug-coated balloons are used, specifically the procedure described by CPT code 37224, are appropriately described by the existing procedure codes and do not believe it is necessary at this time to establish a Healthcare Common Procedure Coding System C-code or G-code to distinguish an angioplasty procedure with a drug-coated balloon from an angioplasty procedure without a drug-coated balloon. The OPPS is a prospective payment system that relies on the principles of averaging, with some cases in an APC being more costly than others (and some cases being less costly).”

We disagree with this description. Because lower extremity angioplasty with more expensive DCBs is superior to uncoated balloon angioplasty, we assert that angioplasty with an uncoated balloon should rarely be used as standalone or definitive therapy (10,11). The comments from CMS about averaging the costs implies that both procedures have similar clinical efficacy and are interchangeable; therefore, the costs will balance out over time. This assumption by CMS is erroneous; indeed, angioplasty with uncoated balloons alone is broadly considered as substandard care given the superior 5-year outcomes with drug-eluting stents (DES) and 4-year outcomes with DCBs (12-14). It is therefore difficult to understand CMS’s decision to consider DCB and angioplasty equal and interchangeable from a reimbursement perspective. In doing so, CMS risks unintended consequences resulting from reduced use of DCBs that will negatively impact patient outcomes.

This decision by CMS regarding hospital outpatient reimbursement for DCB procedures on the expiration of the add-on payment raises the issue of how CMS perceives “value.” If value is determined by patient outcomes, plus access to necessary medical care, divided by cost, then the superior clinical outcomes associated with femoropopliteal DCB use appear to be overlooked in a system that bases decisions only on

costs. This is troubling, because decisions made solely on cost criteria may lead to rationing of effective health care therapies independent of the patient's best option. In this specific case, elderly Medicare patients would be disadvantaged, by the insufficient reimbursement available for more expensive, but more beneficial, treatment with DCBs.

Considering the disconnect between the current fee-for-service system and the available evidence base, the bigger question is, will this ruling by CMS have an impact on the health of patients with PAD? If the goal of the CMS program with novel technology is to nudge hospitals to swallow the cost differences, then this is unfortunate, as many hospitals that are currently experiencing financial distress will not be able to assume the additional cost of DCBs resulting from the significant reduction in reimbursement. This will likely incent physician operators toward lower DCB use and have a negative impact on patient outcomes while increasing repeat procedures, especially in more financially disadvantaged environments.

Although physicians, allied health professionals, and hospitals have a duty to provide the best evidence-based care to every patient, the financial impact of providing optimal care for patients remains a reality that must be addressed. We feel the current CMS decision will have a negative impact on DCB use, resulting in poorer vessel patency and quality of life, and higher readmission rates and overall health care costs for CMS beneficiaries (3,5,7-9).

Despite the many letters submitted during the 60-day comment period, CMS's agreement to continue to track C2623 codes and wait for panel review of the APCs for endovascular procedures is disappointing. Furthermore, CMS's decisions appear arbitrary when considered against evidence-based guidelines written

in collaboration with multiple professional societies (15). It is difficult to understand a decision that severely underpays for the most innovative and effective technologies supported by level 1 evidence of clinical benefit (10,15,16).

The current fee-for-service system used by CMS does not align with patients' best interests and ignores value-based care. We would ask that this CMS reimbursement decision be updated to place more emphasis on data and clinical outcomes. CMS should instead seek direct input on the merits of each technology from knowledgeable, independent, multidisciplinary teams of content experts who consider data on patient health impact, including cost, safety, and efficacy.

We hereby issue a call to action to professional societies, representing thousands of physicians and the millions of patients they treat, patient advocacy groups, and patients themselves to partner with CMS on how to improve payment systems so that incentives are appropriately aligned, supporting therapies based on their patient and societal value. Representatives from major societies can provide guidance and expertise from a clinical perspective, to help CMS make important payment decisions that has an impact on the health of thousands of patients. We hope that this document facilitates the opening of a dialogue among Congress, CMS, professional societies, and medical professionals.

---

**ADDRESS FOR CORRESPONDENCE:** Dr. Mehdi H. Shishehbor, Case Western Reserve University School of Medicine, University Hospitals, 11100 Euclid Avenue, Lakeside 3rd Floor, Cleveland, Ohio 44106. E-mail: [mehdi.shishehbor@uhhospitals.org](mailto:mehdi.shishehbor@uhhospitals.org).

---

## REFERENCES

- Centers for Medicare and Medicaid Services. Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems and Quality Reporting 2017. Available at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalOutpatientPPS/Hospital-Outpatient-Regulations-and-Notices-Items/CMS-1678-P.html>. Accessed December 15, 2017.
- Centers for Medicare and Medicaid Services. Available at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalOutpatientPPS/pass-through-payment.html>. Accessed December 15, 2017.
- Laird JR, Schneider PA, Tepe G, et al., IN.PACT SFA Trial Investigators. Sustained durability of treatment effect using a drug-coated balloon for femoropopliteal lesions: 24-month results of IN.PACT SFA. *J Am Coll Cardiol* 2015;66:2329-38.
- Tepe G, Laird J, Schneider P, et al., IN.PACT SFA Trial Investigators. Drug-coated balloon versus standard percutaneous transluminal angioplasty for the treatment of superficial femoral and popliteal peripheral artery disease: 12-month results from the IN.PACT SFA randomized trial. *Circulation* 2015;131:495-502.
- Zeller T, Rastan A, Macharzina R, et al. Drug-coated balloons vs. drug-eluting stents for treatment of long femoropopliteal lesions. *J Endovasc Ther* 2014;21:359-68.
- Pietzsch JB, Geisler BP, Garner AM, Zeller T, Jaff MR. Economic analysis of endovascular interventions for femoropopliteal arterial disease: a systematic review and budget impact model for the United States and Germany. *Catheter Cardiovasc Interv* 2014;84:546-54.
- Salisbury AC, Li H, Vilain KR, et al. Cost-effectiveness of endovascular femoropopliteal intervention using drug-coated balloons versus standard percutaneous transluminal angioplasty: results from the IN.PACT SFA II Trial. *J Am Coll Cardiol Intv* 2016;9:2343-52.
- Krishnan P, Faries P, Niazi K, et al. Stellarex drug-coated balloon for treatment of femoropopliteal disease: twelve-month outcomes from the randomized ILLUMINATE pivotal and pharmacokinetic studies. *Circulation* 2017;136:1102-13.
- Rosenfield K, Jaff MR, White CJ, et al. Trial of a paclitaxel-coated balloon for femoropopliteal artery disease. *N Engl J Med* 2015;373:145-53.
- Shishehbor MH, Jaff MR. Percutaneous therapies for peripheral artery disease. *Circulation* 2016;134:2008-27.

11. Shishehbor MH. Endovascular treatment of femoropopliteal lesions: so many options, little consensus. *J Am Coll Cardiol* 2015;66:2339-42.
12. Dake MD, Ansel GM, Jaff MR, et al. Durable clinical effectiveness with paclitaxel-eluting stents in the femoropopliteal artery: 5-year results of the Zilver PTX randomized trial. *Circulation* 2016;133:1472-83.
13. Yokoi H, Ohki T, Kichikawa K, et al. Zilver PTX post-market surveillance study of paclitaxel-eluting stents for treating femoropopliteal artery disease in Japan: 12-month results. *J Am Coll Cardiol Intv* 2016;9:271-7.
14. Tepe G, Schnorr B, Albrecht T, et al. Angioplasty of femoral-popliteal arteries with drug-coated balloons: 5-year follow-up of the THUNDER trial. *J Am Coll Cardiol Intv* 2015;8:102-8.
15. Gerhard-Herman MD, Gornik HL, Barrett C, et al. 2016 AHA/ACC Guideline on the Management of Patients With Lower Extremity Peripheral Artery Disease: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation* 2017;135:e726-79.
16. Klein AJ, Jaff MR, Gray BH, et al. SCAI appropriate use criteria for peripheral arterial interventions: an update. *Catheter Cardiovasc Interv* 2017;90:E90-110.

---

**KEY WORDS** Center for Medicare and Medicaid Services, drug-coated balloons, fee-for-service, pass-through add-on payments, public health, value-based system