

SUMMARY OF SAFETY AND EFFECTIVENESS DATA (SSED)

I. GENERAL INFORMATION

Device Generic Name: Coronary Drug-Eluting Stent

Device Trade Name: SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System (Monorail™)

SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System (Over-The-Wire™)

SYNERGY™ XD Everolimus-Eluting Platinum Chromium Coronary Stent System (Monorail™)

Device Procode: NIQ

Applicant's Name and Address: Boston Scientific Corporation
300 Boston Scientific Way
Marlborough, MA 01752-1566

Date of Panel Recommendation: None

Premarket Approval Application (PMA) Number: P150003/S058

Date of FDA Notice of Approval: August 10, 2020

The SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System (Monorail and Over-the-Wire) PMA (P150003) was previously approved on July 30, 2016 and is indicated for improving luminal diameter in patients, including those with diabetes mellitus, with symptomatic heart disease, stable angina, unstable angina, non-ST elevation MI or documented silent ischemia due to atherosclerotic lesions in native coronary arteries ≥ 2.25 mm to ≤ 4.0 mm in diameter in lesions ≤ 34 mm in length. The SSED documents to support these indications are available on the following CDRH websites and are incorporated into the current SSED by reference here.

The SSEDs to support the indication are available on the following FDA websites and are incorporated by reference herein:

- P150003: http://www.accessdata.fda.gov/cdrh_docs/pdf15/P150003B.pdf
- P150003/S003: http://www.accessdata.fda.gov/cdrh_docs/pdf15/P150003S003B.pdf

The current supplement was submitted to expand the indication for the SYNERGY and SYNERGY XD Everolimus-Eluting Platinum Chromium Coronary Stent Systems to include patients at high bleeding risk (HBR).

II. INDICATIONS FOR USE

The SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System is indicated for improving luminal diameter in patients, including those at high risk for bleeding, with diabetes mellitus, with symptomatic heart disease, stable angina, unstable angina, non-ST elevation MI or documented silent ischemia due to atherosclerotic lesions in native coronary arteries ≥ 2.25 mm to ≤ 5.00 mm in diameter in lesions ≤ 34 mm in length.

The SYNERGY™ XD Everolimus-Eluting Platinum Chromium Coronary Stent System is indicated for improving luminal diameter in patients, including those with diabetes mellitus, with symptomatic heart disease, stable angina, unstable angina, non-ST elevation MI or documented silent ischemia due to atherosclerotic lesions in native coronary arteries ≥ 2.25 mm to ≤ 5.00 mm in diameter in lesions ≤ 44 mm in length and for high bleeding risk patients with coronary arteries ≥ 2.25 mm to ≤ 5.00 mm in diameter in lesions ≤ 34 mm in length.

III. CONTRAINDICATIONS

Use of the SYNERGY™ and SYNERGY™ XD Everolimus-Eluting Platinum Chromium Coronary Stent System is contraindicated in patients with known hypersensitivity to:

- 316L stainless steel, platinum, chromium, iron, nickel or molybdenum;
- Everolimus or structurally-related compounds; and/or
- The polymer or their individual components.

Coronary Artery Stenting is contraindicated for use in:

- Patients judged to have a lesion that prevents complete inflation of an angioplasty balloon or proper placement of the stent or delivery device.
- Patients with uncorrected bleeding disorders or patients who cannot receive anticoagulation or antiplatelet aggregation therapy.

IV. WARNINGS AND PRECAUTIONS

The warnings and precautions can be found in the SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System and SYNERGY™ XD Everolimus-Eluting Platinum Chromium Coronary Stent System respective labeling.

V. DEVICE DESCRIPTION

The SYNERGY™ and SYNERGY™ XD Everolimus-Eluting Platinum Chromium Coronary Stent Systems are a device/drug combination products that provides a mechanical structure for vascular lumen support (primary mode of action) and a pharmacological agent (everolimus) targeted towards reducing the injury response. Both

systems consists of a drug/polymer-coated balloon-expandable stent, pre-mounted on a Monorail™ (MR) delivery catheter. The SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System can also be mounted as an Over-The-Wire (OTW) delivery catheter. The stent is made from a platinum chromium alloy (PtCr). The drug/polymer coating consists of a bioabsorbable polymer, poly (D,L-lactide-co-glycolide) (PLGA), and the active pharmaceutical ingredient, everolimus. The characteristics of the SYNERGY™ and SYNERGY™ XD Everolimus-Eluting Platinum Chromium Coronary Stent Systems (hereafter referred to as SYNERGY and SYNERGY XD) are described in Table 1.

Table 1. SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System Product Description

	SYNERGY Monorail Stent Delivery System	SYNERGY Over-the-Wire Stent Delivery System	SYNERGY XD Monorail Stent Delivery System
Available Stent Lengths (mm)	8, 12, 16, 20, 24, 28, 32, 38		8, 12, 16, 20, 24, 28, 32, 38, 48*
Available Stent Diameters (mm)	2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 4.50**, 5.00**	2.25, 2.50, 2.75, 3.00, 3.50, 4.00	2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 4.50** and 5.00**
Stent Material	Platinum Chromium Alloy (PtCr)		
Stent Strut Thickness	2.25 mm to 2.75 mm: 0.0029 inches (0.074 mm) 3.00 mm to 3.50 mm: 0.0031 inches (0.079 mm) 4.00 mm to 5.00 mm: 0.0032 inches (0.081 mm)	2.25 mm to 2.75 mm: 0.0029 inches (0.074 mm) 3.00 mm to 3.50 mm: 0.0031 inches (0.079 mm) 4.00 mm: 0.0032 inches (0.081 mm)	2.25 mm to 2.75 mm: 0.0029 inches (0.074 mm) 3.00 mm to 3.50 mm: 0.0031 inches (0.079 mm) 4.00 mm to 5.00 mm: 0.0032 inches (0.081 mm)
Drug Product	An abluminal (outer surface of the stent in contact with the vessel wall) coating of a polymer carrier with approximately 1 µg of everolimus per mm ² of total stent surface area with a maximum nominal drug content of 287 µg on the largest stent (38 mm).		An abluminal (outer surface of the stent in contact with the vessel wall) coating of a polymer carrier with approximately 1 µg of everolimus per mm ² of total stent surface area with a maximum nominal drug content of 364 µg on the largest stent (48 mm).
Delivery System			

	SYNERGY Monorail Stent Delivery System	SYNERGY Over-the-Wire Stent Delivery System	SYNERGY XD Monorail Stent Delivery System
Effective Length	144 cm		
Delivery System Ports	Single access port to inflation lumen. Guidewire exit port is located approximately 25 cm from tip. Designed for guidewire ≤0.014 inches (0.36 mm)	Y-Connector (Side arm for access to balloon inflation/deflation lumen. Straight arm is continuous with shaft inner lumen). Designed for guidewire ≤0.014 inches (0.36 mm)	Single access port to inflation lumen. Guidewire exit port is located approximately 23 cm from tip. Designed for guidewire ≤0.014 inches (0.36 mm)
Stent Delivery	A balloon, with two radiopaque balloon markers, nominally placed 0.4 mm (0.016 inches) beyond the stent at each end.		
Balloon Inflation Pressure	Nominal Inflation Pressure for all the diameters: 11 atm (1117 kPa)		
	Rated Burst Inflation Pressure: <ul style="list-style-type: none"> Diameters 2.25 mm – 2.75 mm: 18 atm (1827 kPa) Diameters 3.00 mm – 5.00 mm: 16 atm (1620 kPa) 	Rated Burst Inflation Pressure: <ul style="list-style-type: none"> Diameters 2.25 mm – 2.75 mm: 18 atm (1827 kPa) Diameters 3.00 mm – 4.00 mm: 16 atm (1620 kPa) 	Rated Burst Inflation Pressure: <ul style="list-style-type: none"> Diameters 2.25 mm – 2.75 mm: 18 atm (1827 kPa) Diameters 3.00 mm – 5.00 mm: 16 atm (1620 kPa)
Catheter Shaft Outer Diameter	Proximal: 2.1 F (0.70 mm) Distal: 2.25 mm – 2.75 mm: 2.6F (0.90 mm) 3.00 mm: <ul style="list-style-type: none"> (8 – 28 mm): 2.6F (0.90 mm) (32 – 38 mm): 2.7F (0.95 mm) 3.50 mm: <ul style="list-style-type: none"> (8 – 20 mm): 2.6F (0.90 mm) (24 – 38 mm): 2.7F (0.95 mm) 4.00 mm – 5.00 mm: 2.7F (0.95 mm)	3.2F (1.07 mm) proximal for 2.25 to 3.50 mm sizes 3.4F (1.15 mm) proximal for 4.00 mm sizes 2.4F (0.82 mm) distal for 2.25 to 2.75 mm sizes 2.7F (0.92 mm) distal for 3.00 to 4.00 mm sizes	Proximal: 2.0 F (0.67 mm) Distal: 2.25 mm – 2.75 mm: 2.6F (0.89 mm) 3.00 mm: <ul style="list-style-type: none"> (8 – 28 mm): 2.6F (0.89 mm) (32 – 48 mm): 2.7F (0.92 mm) 3.50 mm: <ul style="list-style-type: none"> (8 – 20 mm): 2.6F (0.89 mm) (24 – 48 mm): 2.7F (0.92 mm) 4.00 mm – 5.00 mm: 2.7F (0.92 mm)

	SYNERGY Monorail Stent Delivery System	SYNERGY Over-the-Wire Stent Delivery System	SYNERGY XD Monorail Stent Delivery System
Guide Catheter Minimum Inner Diameter Requirement	2.25 – 4.00 mm: ≥ 5F (0.056 inches/1.42 mm) 4.50 mm – 5.00 mm: ≥ 6F (0.066 inches/1.68 mm)	≥6F (0.066 inches/1.68 mm)	2.25 – 4.00 mm: ≥ 5F (0.056 inches/1.42 mm) 4.50 mm – 5.00 mm: ≥ 6F (0.070 inches/1.78 mm)
Shelf life	24 months	24 months	24 months

* The 48 mm length is not available in 2.25 mm, 4.50 mm or 5.00 mm diameters.

** 4.50 mm and 5.00 mm diameter sizes not available in 8 mm and 38 mm lengths.

A. Device Component Description

The SYNERGY and XYNERGY XD stents are comprised of a Platinum Chromium Alloy (PtCr). Similar to other metallic stents manufactured by Boston Scientific, the stent component is laser cut into a specific geometric pattern which consists of serpentine rings connected by links that are highly polished to a uniform rounded surface.

Three (3) separate stent models were designed in specific size ranges. A stent model is defined as a variation of a specific geometry pattern designed for various vessel diameters. The three models are defined below:

- Small Vessel (SV): 2.25 mm, 2.50 mm and 2.75 mm
- Workhorse (WH): 3.00 mm and 3.50 mm
- Large Vessel (LV): 4.00 mm, 4.50 and 5.00mm

The commercial matrix is shown in Table 2 below.

Table 2. SYNERGY U.S. Commercial Matrix (Monorail and Over-The-Wire) and SYNERGY XD Product Matrix

		Stent Length									
		8 mm	12 mm	16 mm	20 mm	24 mm	28 mm	32 mm	38 mm	48 mm	
Stent Model/ Balloon Diameter	SV	2.25 mm	X	X	X	X	X	X	X	X	
		2.50 mm	X	X	X	X	X	X	X	X	X
		2.75 mm	X	X	X	X	X	X	X	X	X
	W H	3.00 mm	X	X	X	X	X	X	X	X	X
		3.50 mm	X	X	X	X	X	X	X	X	X
	LV	4.00 mm	X	X	X	X	X	X	X	X	X
		4.50 mm		X	X	X	X	X	X		
		5.00 mm		X	X	X	X	X	X		

B. Drug Component Description

The SYNERGY stent drug matrix is composed of the bioabsorbable polymer poly (D,L-lactide-co-glycolide) (PLGA) and the anti-proliferative drug everolimus. The drug to polymer formulation is 45:55 (w/w).

1. Everolimus

The active pharmaceutical ingredient in the SYNERGY and SYNERGY XD stents are everolimus. The everolimus chemical name is 40-O-(2-hydroxyethyl)-rapamycin, and its chemical structure is provided in Figure 1. The nominal total loaded dose of everolimus and coat weight per nominal stent length/diameter is shown in Table 3.

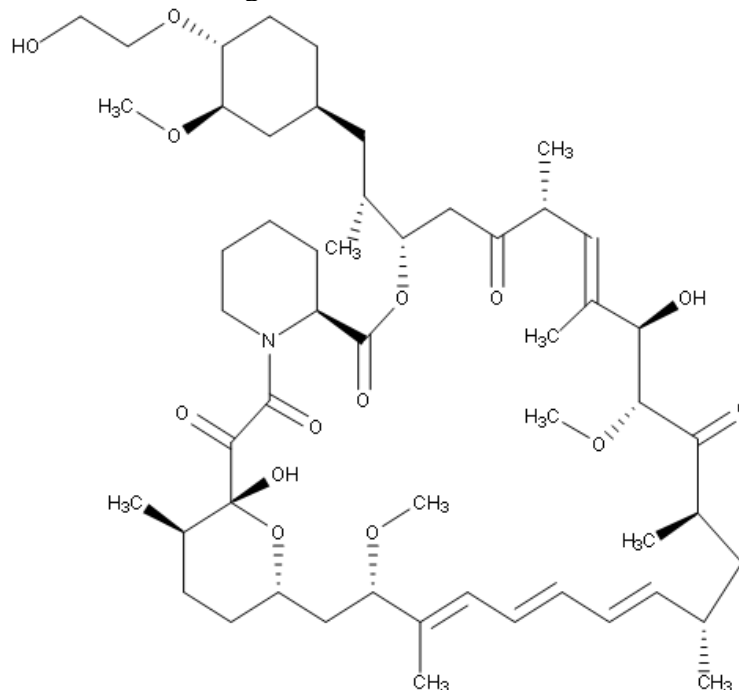


Figure 1. Structure of Everolimus

Table 3. Nominal Loaded Dose of Everolimus (μg) and Coat Weight per Nominal Stent Length and Diameter

Design	Stent Model	Stent Length								
		8 mm	12 mm	16 mm	20 mm	24 mm	28 mm	32 mm	38 mm	48 mm
Total Drug Content/ Stent (μg)	SV	38.9	58.3	77.6	96.9	121.1	140.5	159.8	188.9	237.2
	WH	46.5	66.3	92.7	112.5	132.3	158.7	178.5	211.6	271.0
	LV	67.5	96.2	124.8	153.5	182.2	210.8	239.5	287.2	363.6
Total Coat Weight/Stent (μg)	SV	87	132	174	218	273	316	360	426	535
	WH	104	149	209	254	298	358	403	477	611
	LV	152	217	281	346	411	475	539	647	819

SV – Small Vessel (2.25 mm, 2.50 mm, and 2.75 mm)

WH – Workhorse (3.00 mm and 3.50 mm)

LV – Large Vessel (4.00 mm, 4.50 mm, and 5.00 mm)

2. Inactive Ingredient

Polymer—Poly (DL-lactide-co-glycolide) (PLGA)

SYNERGY and SYNERGY XD are abuminally coated with a bioabsorbable coating. The coating consists of bioabsorbable PLGA polymer and everolimus. The PLGA polymer provides controlled and sustained release of available everolimus through the intended time frame, during which the polymer is reabsorbed into the body. The chemical structure of PLGA is shown in Figure 2.

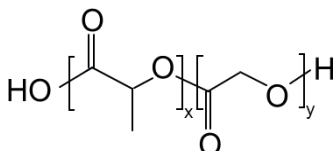


Figure 2. Structure of PLGA

3. Mechanism of Action of Everolimus

On a cellular level, everolimus inhibits, in a reversible manner, growth factor-stimulated cell proliferation. On a molecular level, everolimus forms a complex with the cytoplasmic protein FKBP-12. In the presence of everolimus, the growth factor-stimulated phosphorylation of p70 S6 kinase and 4E-BP1 is inhibited. The latter proteins are key proteins involved in the initiation of protein synthesis. Since phosphorylation of both p70 S6 kinase and 4E-BP1 is under the control of FRAP (FKBP-12-rapamycin associated protein, also called mTOR, mammalian target of rapamycin) this finding suggests that, the everolimus-FKBP-12 complex binds to and thus interferes with the function of FRAP. FRAP is a key regulatory protein which governs cell metabolism, growth and proliferation. Disabling FRAP function explains the cell cycle arrest at the late G1 stage caused by everolimus.

VI. ALTERNATIVE PRACTICES AND PROCEDURES

There are several other alternatives for the correction of coronary artery disease. These may include exercise, diet, smoking cessation, drug therapy, percutaneous coronary interventions (such as angioplasty and placement of bare metal stents, coated stents, and other drug eluting stents), and coronary artery bypass graft surgery (CABG). Each alternative has its own advantages and disadvantages. A patient should fully discuss these alternatives with his/her physician to select the method that best meets expectations and lifestyle.

VII. MARKETING HISTORY

US Marketing History

The Original PMA (P150003) for SYNERGY Everolimus-Eluting Platinum Chromium Coronary Stent System (Monorail and Over-The-Wire) received PMA approval on October 2, 2015.

As of October 31, 2019, 1,640,891 stents have been distributed within the United States.

International Marketing (OUS) History

SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System (Monorail) (UPN H74939198xxxx0) was commercially available in international markets outside of the US (OUS) as of November 2012.

As of June 22, 2016, approximately 64,822 SYNERGY (UPN H74939198xxxx0) stents have been distributed OUS.

A modified SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System (Monorail) UPNs (UPN H74939262xxxx0) became commercially available in international markets OUS as of December 2013 as a design iteration to the original OUS launch device. This design is comparable to the US commercial design approved as per PMA P150003.

As of October 31, 2019, approximately 1,253,846 SYNERGY (UPN H74939262xxxx0) stents have been distributed OUS.

An Over-the-Wire version of SYNERGY is not available in international markets (OUS). Table 4 lists countries where the SYNERGY product is currently commercially available. No products have been withdrawn from the market in any country for any reason.

Table 4. Countries with SYNERGY Commercial Availability

Algeria	Andorra	Argentina	Australia
Austria	Azerbaijan	Bahrain	Bangladesh
Barbados	Belarus	Belgium	Bolivia
Bonaire & Saba	Bosnia & Herzegovina	Botswana	Brazil
Brunei Darussalam	Bulgaria	Canada	Cayman Islands
Chile	China	Colombia	Costa Rica
Curaçao	Cyprus	Czech Republic	Denmark
Dominican Republic	Dutch Antilles	Ecuador	Egypt
El Salvador	Estonia	Finland	France
Georgia	Germany	Great Britain	Greece
Guyana	Haiti	Honduras	Hong Kong*
Hungary	Iceland	India	Indonesia
Iran	Iraq	Ireland	Israel
Italy	Jamaica	Japan*	Jordan
Kazakhstan	Kenya	Kosovo	Kuwait
Latvia	Lebanon	Libya	Liechtenstein
Lithuania	Luxembourg	Macau	Macedonia
Malaysia	Malta	Mauritius	Mexico
Mongolia	Montenegro	Morocco	Mozambique
Myanmar	Namibia	Nepal	Netherlands, The
New Zealand	Norway	Oman	Pakistan
Palestine, State of	Panama	Paraguay	Peru
Philippines	Poland	Portugal	Qatar

Romania	Russian Federation	Saudi Arabia	Serbia
Singapore	Slovakia	Slovenia	South Africa
South Korea	Spain	Sri Lanka	Sweden
Switzerland	Taiwan	Thailand	Trinidad & Tobago
Tunisia	Turkey	United Arab Emirates	United States*
Vietnam			

*Countries with SYNERGY XD commercially available

VIII. PROBABLE ADVERSE EFFECTS OF THE DEVICE ON HEALTH

Potential adverse events (in alphabetical order) which may be associated with the use of a coronary stent in native coronary arteries include but are not limited to:

- Abrupt stent closure
- Allergic reaction to anti-coagulant and/or antiplatelet therapy, contrast medium, or stent materials, including the stent metallic components and polymer coating
- Angina
- Arrhythmias, including ventricular fibrillation, ventricular tachycardia, and heart block
- Cardiogenic shock/pulmonary edema
- Death
- Embolization, (air, tissue or thrombotic material or material from devices(s) used in the procedure) including stent embolization or migration
- Heart failure
- Hemorrhage, which may require transfusion, including bleeding and hematoma
- Hypotension/hypertension
- Infection, local or systemic, including fever and pyrogen reaction
- Myocardial ischemia or infarction
- Pain, chest or access site
- Pericardial effusion or cardiac tamponade
- Renal insufficiency or failure
- Respiratory failure
- Restenosis or aneurysm of stented segment
- Stent deformation, collapse, or fracture
- Stent thrombosis/occlusion
- Stroke/cerebrovascular accident/transient ischemic attack (TIA)
- Vessel trauma requiring surgical repair or re-intervention, including coronary, femoral or radial artery spasm, dissection, occlusion, perforation, rupture, or pseudoaneurysm

Adverse events associated with daily oral administration of everolimus to organ transplant patients include but are not limited to:

- Abdominal pain (including upper abdominal pain)
- Anemia
- Angioedema

- Anorexia
- Asthenia
- Constipation
- Cough
- Delayed wound healing/fluid accumulation
- Diarrhea
- Dyslipidemia (including hyperlipidemia and hypercholesterolemia)
- Dysgeusia
- Dyspepsia
- Dyspnea
- Dysuria
- Dry skin
- Edema (Peripheral)
- Epistaxis
- Fatigue
- Headache
- Hematuria
- Hyperglycemia (may include new onset of diabetes)
- Hyperkalemia
- Hyperlipidemia
- Hypertension
- Hypokalemia
- Hypomagnesemia
- Increased serum creatinine
- Infections and serious infections: bacterial, viral, fungal, and protozoal infections (may include herpes virus infection, polyoma virus infection which may be associated with BK virus associated nephropathy, and/or other opportunistic infections)
- Insomnia
- Interaction with strong inhibitors and inducers of CYP3A4
- Leukopenia
- Lymphoma and other malignancies (including skin cancer)
- Male infertility (azospermia and/or oligospermia)
- Mucosal inflammation (including oral ulceration and oral mucositis)
- Nausea
- Neutropenia
- Non-infectious pneumonitis
- Pain; extremity, incision site and procedural, back, chest, musculoskeletal
- Proteinuria
- Pruritus
- Pyrexia
- Rash
- Stomatitis
- Thrombocytopenia

- Thrombotic Microangiopathy (TMA)/Thrombotic thrombocytopenic purpura (TTP)/Hemolytic uremic syndrome (HUS)
- Tremor
- Upper respiratory tract infection
- Urinary tract infection
- Vomiting

There may be other potential adverse events that are unforeseen at this time.

For the specific adverse events that occurred in the EVOLVE II clinical study, please see Section X: Summary of Primary Clinical Studies, below.

IX. SUMMARY OF NONCLINICAL STUDIES

A summary of previously reported preclinical studies can be found in the SSED for the original PMA. Because these previously collected data sufficiently represent the performance of the device for the new indications for use, no new non-clinical testing was conducted.

X. SUMMARY OF PRIMARY CLINICAL STUDIES

The EVOLVE II Clinical Program evaluated the SYNERGY Everolimus-Eluting Platinum Chromium Coronary Stent System for the treatment of atherosclerotic lesions in 3 studies. The Program includes the EVOLVE II trial, (randomized controlled trial (RCT) with a parallel single-arm pharmacokinetics (PK) sub-study, and consecutive single arm diabetic (DM) sub-study). Additionally, EVOLVE II QCA, a quantitative coronary angiography (QCA) study was conducted. Summaries of these studies can be found in the SSED for the original PMA.

The EVOLVE Short DAPT Study was conducted to evaluate the safety of 3-month dual antiplatelet therapy (DAPT) in subjects at high risk for bleeding undergoing percutaneous coronary intervention (PCI) with the SYNERGY Stent System.

A. EVOLVE Short DAPT Study

1. Study Design

The EVOLVE Short DAPT Study is a prospective, multicenter, single-arm study, using a historical control and a propensity score approach to assess the safety of 3-month DAPT in subjects at high risk for bleeding undergoing PCI with a SYNERGY Stent System.

High bleeding risk subjects were enrolled if they met one or more of the following criteria: ≥ 75 years of age and, in the opinion of the investigator, the risk of bleeding associated with >3 months of DAPT outweighs the benefit; need for chronic or lifelong anticoagulation, history of major bleeding (severe/life threatening or moderate bleeding based on the GUSTO classification) within 12 months of the index procedure; history of stroke (ischemic or hemorrhagic); renal insufficiency (creatinine ≥ 2.0 mg/dl) or failure (dialysis dependent); platelet count $\leq 100,000/\mu\text{L}$. Subjects were prescribed dual

antiplatelet therapy (P2Y₁₂ inhibitor + aspirin) between 0-3 months post-procedure. Aspirin was optional between 0-3 months for subjects on chronic anticoagulation. Subjects were eligible to discontinue P2Y₁₂ inhibitor at 3 months if they were compliant with the prescribed dual antiplatelet therapy and were free from events between 0-3 months (stent thrombosis, myocardial infarction, revascularization, or stroke). Subjects that discontinued P2Y₁₂ inhibitor at 3 months were prescribed aspirin through the end of the study.

a) Enrollment Inclusion and Exclusion Criteria

Table 5. EVOLVE Short DAPT Study Enrollment Inclusion and Exclusion Criteria

Enrollment Inclusion Criteria	<ol style="list-style-type: none"> 1. Subject is considered at high risk for bleeding, defined as meeting one or more of the following criteria at the time of enrollment: <ul style="list-style-type: none"> • ≥ 75 years of age and, in the opinion of the investigator, the risk of bleeding associated with >3 months of DAPT outweighs the benefit, • need for chronic or lifelong anticoagulation therapy, • history of major bleeding (severe/life-threatening or moderate bleeding based on the GUSTO classification) within 12 months of the index procedure, • history of stroke (ischemic or hemorrhagic), • renal insufficiency (creatinine ≥ 2.0 mg/dl) or failure (dialysis dependent), • platelet count $\leq 100,000/\mu\text{L}$ 2. Subject must be at least 18 years of age 3. Subject must have had implantation of at least one SYNERGY stent within the preceding 3 calendar days 4. Subject must be able to take study required antiplatelet therapy (as required per protocol) 5. Subject is willing to comply with all protocol requirements, including agreement to stop taking P2Y₁₂ inhibitor at the 3-month milestone, if eligible per protocol 6. Subject (or legal guardian) understands the trial requirements and the treatment procedures and provides written informed consent before any study-specific procedures are performed 7. For subjects less than 20 years of age enrolled at a Japanese site, the subject/ the subject's legal representative must provide written informed consent before any study-specific tests or procedures are performed
Clinical Exclusion Criteria	<ol style="list-style-type: none"> 1. Subject with an indication for the index procedure of acute ST elevation MI (STEMI) 2. Subject with an indication for the index procedure of Non-ST elevation MI (NSTEMI), based on the 3rd Universal MI definition 3. Subject with treatment with another coronary stent, other than SYNERGY, during the index procedure

	<ol style="list-style-type: none"> 4. Subject with planned staged procedures. (Note: Planned staged procedures are allowed if performed within 7 days and with only SYNERGY stents). 5. Subject has a known allergy to contrast (that cannot be adequately pre-medicated), the SYNERGY stent system or protocol-required concomitant medications (e.g., everolimus or structurally related compounds, polymer or individual components, all P2Y₁₂ inhibitors and aspirin) 6. Subject with implantation of a drug-eluting stent within 9 months prior to index procedure 7. Subject previously treated at any time with intravascular brachytherapy 8. Subject has an active peptic ulcer or active gastrointestinal (GI) bleeding 9. Subject is participating in an investigational drug or device clinical trial that has not reached its primary endpoint (Note: registry, observational, data collection studies are not exclusionary) 10. Subject intends to participate in an investigational drug or device clinical trial within 15 months following the index procedure (Note: registry, observational, data collection studies are not exclusionary) 11. Subject judged inappropriate for discontinuation from P2Y₁₂ inhibitor use at 3 months, due to another condition requiring chronic P2Y₁₂ inhibitor use 12. Subject with planned surgery or procedure necessitating discontinuation of P2Y₁₂ inhibitor within 3 months following index procedure 13. Subject is a woman who is pregnant or nursing 14. Subject with a current medical condition with a life expectancy of less than 15 months 15. Target lesion(s) is located in the left main 16. Target lesion(s) is located within 3 mm of the origin of the left anterior descending (LAD) coronary artery or left circumflex (LCX) coronary artery by visual estimate 17. Subject has unprotected left main coronary artery disease (> 50% diameter stenosis) 18. Planned treatment of more than 3 lesions 19. Planned treatment of lesions in more than 2 major epicardial vessels 20. Target lesion(s) treated that involves a complex bifurcation (i.e. bifurcation lesion requiring treatment with more than one stent) 21. Target lesion(s) is restenotic from a previous stent implantation 22. Target lesion(s) is located within a saphenous vein graft or an arterial graft 23. Target lesion(s) with a TIMI flow 0 (total occlusion) or TIMI flow 1 prior to guide wire crossing 24. Thrombus, or possible thrombus, present in the target vessel (by visual estimate)
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b) Follow-up Schedule

Clinical follow-up was required at the following time points: 3-, 6-, 12- and 15-months post-index procedure. Study follow-up through 15-months is complete.

c) Primary and Secondary Endpoints

The study has 2 powered co-primary endpoints assessed between 3- and 15- months post index procedure: (1) the rate of death from any cause or MI, and (2) the rate of Academic Research Consortium (ARC) definite/probable stent thrombosis related to SYNERGY. The pre-specified secondary endpoint was the rate of bleeding, per Bleeding Academic Research Consortium (BARC) 2,3,5 between 3-15 months.

d) Additional Endpoints

The following clinical endpoints will be measured at 3 months, 6 months, 12 months and 15 months:

- Rate of major adverse cardiac & cerebrovascular events (MACCE), defined as the composite of all death, MI, and stroke
- Rate of major adverse cardiac events (MACE), defined as the composite of cardiac death, MI and TVR
- Rate of target vessel failure (TVF), defined as the composite of TVR, cardiac death or target vessel related MI
- Rate of death or MI
- Rate of cardiac death or MI
- Rate of all-cause death
- Rate of cardiac death
- Rate on non-cardiac death
- Rate of MI (Q-wave, non-Q-wave)
- Rate of Stroke
- Rate of BARC 2,3,5 bleeding
- Rate of stent thrombosis (ARC definite/probable), related to SYNERGY
- Rate of Target Vessel Revascularization (TVR)
- Rate of Target Lesion Revascularization (TLR)

2. Subject Disposition in EVOLVE Short DAPT Study

A total of 2009 subjects were enrolled at 110 sites in the United States, Europe, Japan, and Brazil, of which 1487 were eligible to discontinue P2Y₁₂ inhibitor at 3 months. A total of 522 subjects did not meet the criteria for P2Y₁₂ inhibitor discontinuation at 3 months. These patients were excluded from the final analysis. The final analysis set consisted of the 1487 patients that were eligible to discontinue P2Y₁₂ inhibitor at 3 months.

Table 6. Subject Disposition

	3-Month DAPT	Enrolled Subjects
Subjects with SYNERGY implanted	1487	2009
No 3-month clinical follow-up	0.0% (0/1487)	4.8% (97/2009)

	3-Month DAPT	Enrolled Subjects
Death ≤90 days	0.0% (0/1487)	1.7% (34/2009)
Death >90 days	0.0% (0/1487)	0.2% (3/2009)
Withdrawn	0.0% (0/1487)	2.2% (44/2009)
Adverse event	0.0% (0/1487)	0.0% (0/2009)
Investigator discretion	0.0% (0/1487)	0.2% (5/2009)
Lost to follow-up	0.0% (0/1487)	0.5% (10/2009)
Withdrew consent	0.0% (0/1487)	1.3% (27/2009)
Other	0.0% (0/1487)	0.1% (2/2009)
Missed 3-month visit	0.0% (0/1487)	0.8% (16/2009)
3-month clinical follow-up	100.0% (1487/1487)	95.2% (1912/2009)
No 15-month clinical follow-up	6.9% (102/1487)	12.0% (242/2009)
Death ≤455 days	4.1% (61/1487)	5.8% (117/2009)
Death >455 days	0.3% (5/1487)	0.2% (5/2009)
Withdrawn	2.4% (36/1487)	6.0 (120/2009)
Adverse event	0.0% (0/1487)	0.0% (0/2009)
Investigator discretion	0.1% (1/1487)	0.4% (9/2009)
Lost to follow-up	1.6% (24/1487)	2.7% (54/2009)
Withdrew consent	0.7% (10/1487)	2.6% (52/2009)
Other	0.1% (1/1487)	0.2% (5/2009)
15-month clinical follow-up	93.1% (1385/1487)	88.0% (1767/2009)

3. Study Population Baseline and Demographics

Table 7 presents demographics for the analysis set (3-month DAPT). The mean age in the 3-month group was 75.7 years, 34% were female. Patients were predominantly Caucasian (76.7%) and were mildly overweight (Body Mass Index (BMI) 28.7).

Table 7. Demographics

Demographics	3-Month DAPT (N=1487 Subjects)
Age (years)	75.7±8.5 (1487) (31.0, 96.0)
Gender	
Male	66.0% (981/1487)
Female	34.0% (506/1487)
Race	
American Indian/Alaska Native	0.5% (7/1487)
Asian	8.7% (130/1487)
Chinese	0.2% (3/1487)
Japanese	7.9% (118/1487)
Korea	0.0% (0/1487)
Other Asian	0.6% (9/1487)
Black, African Heritage	4.7% (70/1487)
Caucasian	77.9% (1159/1487)
Hispanic or Latino	3.0% (45/1487)

Demographics	3-Month DAPT (N=1487 Subjects)
Native Hawaiian or other Pacific Islander	0.1% (1/1487)
Other	0.9% (14/1487)
Not Disclosed	4.4% (66/1487)
Physical Assessment	
Height (cm)	170.0±10.9 (1487) (133.0, 200.7)
Weight (kg)	83.5±20.6 (1487) (33.5, 178.0)
BMI	28.7±5.7 (1487) (13.2, 55.1)

Table 8 shows the baseline clinical characteristics and medical history for the analysis set (3-month DAPT). Thirty-six percent of subjects in the analysis set suffered from diabetes, approximately 19% had prior MI, 23% had congestive heart failure, 26% had unstable angina, and 31% had a history of atrial fibrillation.

Table 8. Baseline Clinical Characteristics

Medical History	3-Month DAPT (N=1487 Subjects)
Smoking Status	
Current Smoker	6.6% (98/1487)
Previous Smoker	48.0% (714/1487)
Never	44.0% (655/1487)
Unknown	1.3% (20/1487)
Current Diabetes Mellitus	
Diabetic (Medically Treated)	32.1% (478/1487)
Diabetic (Insulin Dependent)	12.7% (189/1487)
History of Hyperlipidemia Requiring Medication	79.5% (1182/1487)
History of Hypertension Requiring Medication	88.1% (1310/1487)
History of Bleeding Disorder	4.5% (67/1487)
History of Major Bleeding (GUSTO)	3.6% (54/1487)
Severe/life-threatening	1.5% (22/1487)
Moderate	2.1% (31/1487)
Cardiac History	
History of MI	18.8% (280/1487)
Current MI Indication	0.7% (11/1487)
History of Congestive Heart Failure	23.0% (342/1487)
NYHA Classification	
I	13.7% (47/342)
II	32.5% (111/342)

Medical History	3-Month DAPT (N=1487 Subjects)
III	31.3% (107/342)
IV	4.7% (16/342)
Unknown	17.8% (61/342)
Current Anginal Status:	
None	21.8% (324/1487)
Stable Angina	48.4% (720/1487)
Unstable Angina	26.2% (390/1487)
Unknown	3.6% (53/1487)
If Stable Angina, CCS Class	
1	14.6% (105/720)
2	33.1% (238/720)
3	45.4% (327/720)
4	3.8% (27/720)
Unknown	3.2% (23/720)
If Unstable Angina, Braunwald Class	
IA	4.4% (17/390)
IB	13.1% (51/390)
IC	1.3% (5/390)
IIA	2.6% (10/390)
IIB	15.4% (60/390)
IIC	2.6% (10/390)
IIIA	9.2% (36/390)
IIIB	26.4% (103/390)
IIIC	2.1% (8/390)
Unknown	23.1% (90/390)
Silent Ischemia	8.8% (131/1487)
History of PCI	32.6% (485/1487)
History of CABG	12.2% (181/1487)
Left Ventricle Ejection Fraction (LVEF) (%)	54.7+/-12.2 (1120) (10.0, 92.0)
History of Atrial Fibrillation	31.2% (464/1487)
Neurologic History	
History of TIA	5.6% (83/1487)
History of Cerebrovascular Accidents (Stroke)	13.5% (201/1487)
Renal History	
Renal Insufficiency (Creatinine \geq 2.0 mg/dl)	9.3% (139/1487)
Renal Failure (Dialysis Dependent)	5.3% (79/1487)
Peripheral History	
History of peripheral vascular Disease (PVD)	12.6% (188/1487)

Key Baseline Lesion Characteristics: Visually estimated mean reference vessel diameter was 3.0±0.5 mm, mean lesion length was 17.2±9.5 mm, and mean percent diameter stenosis was 82.6±9.8%. The target lesion location distribution is generally reflective of patients presenting for PCI with approximately 45% in the LAD, 30% in the LCX, and 25 % in the right coronary artery (RCA). Slightly less than 50% of the treated lesions were classified as complex (B2/C). Additional baseline lesion characteristics can be found in Table 9.

Table 9. Baseline Lesion Characteristics

Vessel and Lesion Characteristics	3-Month DAPT (N=1487 Subjects N=1865 lesions)	Non-3-Month DAPT (N=522 Subjects N=679 lesions)	Enrolled (N=2009 Subjects N=2544 lesions)
Pre-Procedure			
Target Lesion Location			
Left Anterior Descending (LAD)	45.6% (850/1865)	43.2% (293/679)	44.9% (1143/2544)
Left Circumflex Artery (LCX)	24.2% (452/1865)	26.8% (182/679)	24.9% (634/2544)
Right Coronary Artery (RCA)	30.1% (562/1865)	29.9% (203/679)	30.1% (765/2544)
Left Main (LM)	0.0% (0/1865)	0.1% (1/679)	0.0% (1/2544)
GRAFT	0.1% (1/1865)	0.0% (0/679)	0.0% (1/2544)
Lesion Length (mm)	17.2±9.5 (1862) (2.5, 80.0)	17.9±10.5 (678) (3.0, 88.0)	17.4±9.8 (2540) (2.5, 88.0)
<10 mm	16.0% (297/1862)	15.9% (108/678)	15.9% (405/2540)
10 – 28 mm	72.7% (1354/1862)	70.2% (476/678)	72.0% (1830/2540)
>28 mm	11.3% (211/1862)	13.9% (94/678)	12.0% (305/2540)
Reference Vessel Diameter (RVD) (mm)	3.0±0.5 (1856) (1.6, 8.0)	2.9±0.5 (678) (1.5, 4.5)	2.9±0.5 (2534) (1.5, 8.0)
<2.25 mm	1.3% (24/1856)	1.6% (11/678)	1.4% (35/2534)
2.25 – <2.5 mm	8.9% (166/1856)	10.0% (68/678)	9.2% (234/2534)
2.5 – <2.75 mm	23.3% (433/1856)	24.0% (163/678)	23.5% (596/2534)
≥2.75 mm	66.4% (1233/1856)	64.3% (436/678)	65.9% (1669/2534)
% Diameter Stenosis	82.6±9.8 (1865) (20.0, 100.0)	83.1±9.7 (678) (50.0, 100.0)	82.8±9.8 (2543) (20.0, 100.0)
Thrombolysis in Myocardial Infarction (TIMI) flow			
0	0.0% (0/1852)	0.2% (1/666)	0.0% (1/2518)
1	0.0% (0/1852)	0.0% (0/666)	0.0% (0/2518)
2	11.6% (214/1852)	12.5% (83/666)	11.8% (297/2518)
3	88.4% (1638/1852)	87.4% (582/666)	88.2% (2220/2518)
Lesion Type			
A	18.3% (342/1864)	18.9% (128/678)	18.5% (470/2542)
B1	34.4% (641/1864)	33.5% (227/678)	34.1% (868/2542)
B2	21.6% (403/1864)	21.4% (145/678)	21.6% (548/2542)

Vessel and Lesion Characteristics	3-Month DAPT (N=1487 Subjects N=1865 lesions)	Non-3-Month DAPT (N=522 Subjects N=679 lesions)	Enrolled (N=2009 Subjects N=2544 lesions)
C	25.6% (478/1864)	26.3% (178/678)	25.8% (656/2542)
B2/C	47.3% (881/1864)	47.6% (323/678)	47.4% (1204/2542)
Calcification			
None	35.8% (667/1865)	33.5% (227/678)	35.2% (894/2543)
Mild	35.1% (655/1865)	32.6% (221/678)	34.4% (876/2543)
Moderate	21.0% (391/1865)	22.4% (152/678)	21.4% (543/2543)
Severe	8.2% (152/1865)	11.5% (78/678)	9.0% (230/2543)
Vessel tortuosity			
None	54.2% (1010/1865)	50.1% (340/678)	53.1% (1350/2543)
Mild	29.0% (540/1865)	33.9% (230/678)	30.3% (770/2543)
Moderate	14.4% (268/1865)	12.2% (83/678)	13.8% (351/2543)
Severe	2.5% (47/1865)	3.7% (25/678)	2.8% (72/2543)
Pre-dilation performed	72.7% (1356/1865)	73.5% (499/679)	72.9% (1855/2544)
Post-Procedure			
Post-dilation performed	62.1% (1159/1865)	62.9% (427/679)	62.3% (1586/2544)
Thrombolysis in Myocardial Infarction (TIMI) flow			
0	0.0% (0/1859)	0.0% (0/670)	0.0% (0/2529)
1	0.0% (0/1859)	0.0% (0/670)	0.0% (0/2529)
2	0.3% (5/1859)	0.0% (0/670)	0.2% (5/2529)
3	99.7% (1854/1859)	100.0% (670/670)	99.8% (2524/2529)
Percent diameter stenosis (%)	0.7±2.9 (1864) (-10.0, 40.0)	0.7±3.6 (678) (0.0, 50.0)	0.7±3.1 (2542) (-10.0, 50.0)
Dissection	1.4% (27/1865)	0.9% (6/679)	1.3% (33/2544)
Grade of the most severe dissection			
A	51.9% (14/27)	83.3% (5/6)	57.6% (19/33)
B	29.6% (8/27)	0.0% (0/6)	24.2% (8/33)
C	11.1% (3/27)	16.7% (1/6)	12.1% (4/33)
D	3.7% (1/27)	0.0% (0/6)	3.0% (1/33)
E	3.7% (1/27)	0.0% (0/6)	3.0% (1/33)
F	0.0% (0/27)	0.0% (0/6)	0.0% (0/33)
Dissection intervention required	70.4% (19/27)	50.0% (3/6)	66.7% (22/33)
Perforation	0.1% (2/1865)	0.0% (0/679)	0.1% (2/2544)

Numbers are presented as % (count/sample size) or mean ± standard deviation (n) (minimum, maximum).
Site reported lesion characteristics.

Key Procedural Characteristics: Approximately 92% of procedures were elective, 8% were emergent, and 1% were staged. The total number of target lesions treated per subject was approximately 1.2/patient in the analysis set (1.3/patient for all enrolled subjects) and the number of Synergy stents deployed was 1.4/subject (1.1/lesion). The total Synergy stent length/subject was approximately 28.5 mm.

Table 10. Procedural Characteristics

Procedure Data	3-Month DAPT (N=1487 Subjects)	Non-3-Month DAPT (N=522 Subjects)	Enrolled (N=2009 Subjects)
Urgency of Intervention			
Elective	92.4% (1374/1487)	91.4% (477/522)	92.1% (1851/2009)
Emergent	7.6% (113/1487)	8.6% (45/522)	7.9% (158/2009)
Procedure Time (min)	42.4±24.1 (1457) (4.0, 251.0)	45.9±28.7 (512) (5.0, 192.0)	43.3±25.5 (1969) (4.0, 251.0)
Any Staged Procedure Planned Within 7 Days using only SYNERGY Stent	1.1% (16/1487)	1.0% (5/522)	1.0% (21/2009)
Number of Target Lesions Treated/Subject	1.2±0.5 (1487) (1.0, 3.0)	1.3±0.5 (522) (1.0, 3.0)	1.3±0.5 (2009) (1.0, 3.0)
1	76.8% (1142/1487)	72.8% (380/522)	75.8% (1522/2009)
2	21.7% (322/1487)	24.9% (130/522)	22.5% (452/2009)
3	1.5% (23/1487)	2.3% (12/522)	1.7% (35/2009)
4 or more	0.0% (0/1487)	0.0% (0/522)	0.0% (0/2009)
Number of Vessels Treated/Subject	1.1±0.3 (1487) (1.0, 2.0)	1.2±0.4 (522) (1.0, 2.0)	1.1±0.3 (2009) (1.0, 2.0)
1	87.2% (1296/1487)	84.7% (442/522)	86.5% (1738/2009)
2	12.8% (191/1487)	15.3% (80/522)	13.5% (271/2009)
3 or more	0.0% (0/1487)	0.0% (0/522)	0.0% (0/2009)
Number of SYNERGY Stents Placed/Subject	1.4±0.6 (1487) (1.0, 5.0)	1.5±0.7 (522) (1.0, 5.0)	1.4±0.6 (2009) (1.0, 5.0)
1	69.4% (1032/1487)	64.2% (335/522)	68.0% (1367/2009)
2	24.9% (370/1487)	28.2% (147/522)	25.7% (517/2009)
3 or more	5.7% (85/1487)	7.7% (40/522)	6.2% (125/2009)
Number of SYNERGY Stents Placed/Lesion	1.1±0.3 (1865) (0.0, 4.0)	1.1±0.4 (679) (0.0, 4.0)	1.1±0.4 (2544) (0.0, 4.0)
0	0.5% (10/1865)	0.4% (3/679)	0.5% (13/2544)
1	90.5% (1687/1865)	88.8% (603/679)	90.0% (2290/2544)
2	7.9% (148/1865)	9.6% (65/679)	8.4% (213/2544)
3 or more	1.1% (20/1865)	1.2% (8/679)	1.1% (28/2544)
Total SYNERGY Stent Length (mm)/Subject	28.1±16.6 (1487) (8.0, 122.0)	29.7±17.9 (521) (8.0, 152.0)	28.5±16.9 (2008) (8.0, 152.0)

Numbers are presented as % (count/sample size) or mean ± standard deviation (n) (minimum, maximum).
Site reported lesion characteristics.

HBR Characteristics of Patients Enrolled in EVOLVE Short DAPT: Table 11 and Table 12 below provide an overview of the study HBR criteria met by the enrolled subjects. 76.8% (1142/1487) of the subjects met only 1 HBR criteria for inclusion in the trial. The most common criteria met were age ≥ 75 years, present in 67.5% (1003/1487) and need for chronic or lifelong oral anticoagulation after PCI which was present in 30.6% (455/1487). In addition, age ≥ 75 years and need for chronic or lifelong oral anticoagulation after PCI, were the only HBR criteria met for 48.4% (719/1487) and 15.3% (227/1487), respectively.

Table 11. Subjects meeting one or more of the HBR inclusion criteria

HBR Inclusion Criteria	3-Month DAPT (N=1487 Subjects)
Patients satisfying one or more of the following criteria:	
≥ 75 years of age and, in the opinion of the investigator, the risk of bleeding associated with >3 months of DAPT outweighs the benefit	67.5% (1003/1487)
Need for chronic or lifelong anticoagulation therapy	30.6% (455/1487)
History of major bleeding (severe/life-threatening or moderate bleeding based on the GUSTO classification) within 12 months of the index procedure	2.7% (40/1487)
History of stroke (ischemic or hemorrhagic)	13.4% (200/1487)
Renal insufficiency (creatinine ≥2.0 mg/dl) or failure (dialysis dependent)	9.1% (136/1487)
Platelet count ≤100,000/μL	2.0% (29/1487)

Table 12. Subjects meeting only one of the HBR inclusion criteria

HBR Inclusion Criteria	3-Month DAPT (N=1487 Subjects)
Patients satisfying only one of the following criteria:	
≥ 75 years of age and, in the opinion of the investigator, the risk of bleeding associated with >3 months of DAPT outweighs the benefit	48.4% (719/1487)
Need for chronic or lifelong anticoagulation therapy	15.3% (227/1487)
History of major bleeding (severe/life-threatening or moderate bleeding based on the GUSTO classification) within 12 months of the index procedure	1.1% (16/1487)
History of stroke (ischemic or hemorrhagic)	5.4% (81/1487)
Renal insufficiency (creatinine ≥2.0 mg/dl) or failure (dialysis dependent)	5.6% (83/1487)
Platelet count ≤100,000/μL	1.1% (16/1487)

Antiplatelet Medication Usage: Use of dual antiplatelet therapy (aspirin plus a P2Y₁₂ inhibitor) at procedure, discharge, 3 months, 6 months, 12 months and 15 months are shown in Table 13. Antiplatelet compliance was generally good. Clopidogrel was the predominant P2Y₁₂ inhibitor (> 75% usage).

Table 13. Antiplatelet Medication Usage

Medications	3-Month DAPT (N=1487 Subjects)	Non-3-Month DAPT (N=522 Subjects)	Enrolled (N=2009 Subjects)
Procedure			
Aspirin and P2Y ₁₂	65.9% (980/1487)	61.5% (321/522)	64.8% (1301/2009)
Aspirin	81.5% (1212/1487)	80.5% (420/522)	81.2% (1632/2009)
Clopidogrel or Prasugrel or Ticagrelor (P2Y ₁₂)	73.0% (1085/1487)	68.4% (357/522)	71.8% (1442/2009)

Medications	3-Month DAPT (N=1487 Subjects)	Non-3-Month DAPT (N=522 Subjects)	Enrolled (N=2009 Subjects)
Clopidogrel	58.3% (867/1487)	55.6% (290/522)	57.6% (1157/2009)
Prasugrel	6.0% (89/1487)	3.1% (16/522)	5.2% (105/2009)
Ticagrelor	10.4% (155/1487)	10.9% (57/522)	10.6% (212/2009)
Other	2.0% (29/1487)	2.1% (11/522)	2.0% (40/2009)
Discharge			
Aspirin and P2Y ₁₂	86.6% (1288/1487)	81.2% (424/522)	85.2% (1712/2009)
Aspirin	91.1% (1355/1487)	86.6% (452/522)	89.9% (1807/2009)
Clopidogrel or Prasugrel or Ticagrelor (P2Y ₁₂)	94.0% (1398/1487)	92.1% (481/522)	93.5% (1879/2009)
Clopidogrel	79.8% (1186/1487)	79.9% (417/522)	79.8% (1603/2009)
Prasugrel	5.7% (85/1487)	3.1% (16/522)	5.0% (101/2009)
Ticagrelor	9.8% (145/1487)	10.2% (53/522)	9.9% (198/2009)
Other	2.0% (30/1487)	1.5% (8/522)	1.9% (38/2009)
3-months			
Aspirin and P2Y ₁₂	79.4% (1181/1487)	72.2% (307/425)	77.8% (1488/1912)
Aspirin	91.0% (1353/1487)	79.8% (339/425)	88.5% (1692/1912)
Clopidogrel or Prasugrel or Ticagrelor (P2Y ₁₂)	87.3% (1298/1487)	90.1% (383/425)	87.9% (1681/1912)
Clopidogrel	75.9% (1129/1487)	80.9% (344/425)	77.0% (1473/1912)
Prasugrel	5.6% (83/1487)	1.9% (8/425)	4.8% (91/1912)
Ticagrelor	5.8% (86/1487)	7.3% (31/425)	6.1% (117/1912)
Other	2.3% (34/1487)	1.9% (8/425)	2.2% (42/1912)
6-months			
Aspirin and P2Y ₁₂	4.1% (60/1458)	56.1% (234/417)	15.7% (294/1875)
Aspirin	94.4% (1376/1458)	79.1% (330/417)	91.0% (1706/1875)
Clopidogrel or Prasugrel or Ticagrelor (P2Y ₁₂)	5.2% (76/1458)	72.4% (302/417)	20.2% (378/1875)
Clopidogrel	4.9% (72/1458)	64.5% (269/417)	18.2% (341/1875)
Prasugrel	0.2% (3/1458)	1.2% (5/417)	0.4% (8/1875)
Ticagrelor	0.1% (1/1458)	6.7% (28/417)	1.5% (29/1875)
Other	2.5% (37/1458)	1.9% (8/417)	2.4% (45/1875)
12-months			
Aspirin and P2Y ₁₂	5.4% (76/1411)	45.5% (179/393)	14.1% (255/1804)
Aspirin	93.9% (1325/1411)	79.9% (314/393)	90.9% (1639/1804)
Clopidogrel or Prasugrel or Ticagrelor (P2Y ₁₂)	6.9% (97/1411)	59.8% (235/393)	18.4% (332/1804)
Clopidogrel	6.0% (85/1411)	53.9% (212/393)	16.5% (297/1804)
Prasugrel	0.4% (5/1411)	1.0% (4/393)	0.5% (9/1804)

Medications	3-Month DAPT (N=1487 Subjects)	Non-3-Month DAPT (N=522 Subjects)	Enrolled (N=2009 Subjects)
Ticagrelor	0.5% (7/1411)	4.8% (19/393)	1.4% (26/1804)
Other	3.0% (42/1411)	2.0% (8/393)	2.8% (50/1804)
15-months			
Aspirin and P2Y ₁₂	6.1% (84/1385)	42.4% (162/382)	13.9% (246/1767)
Aspirin	93.1% (1290/1385)	80.6% (308/382)	90.4% (1598/1767)
Clopidogrel or Prasugrel or Ticagrelor (P2Y ₁₂)	7.4% (102/1385)	55.0% (210/382)	17.7% (312/1767)
Clopidogrel	6.6% (92/1385)	49.2% (188/382)	15.8% (280/1767)
Prasugrel	0.3% (4/1385)	1.3% (5/382)	0.5% (9/1767)
Ticagrelor	0.4% (6/1385)	4.5% (17/382)	1.3% (23/1767)
Other	3.1% (43/1385)	2.6% (10/382)	3.0% (53/1767)

Numbers are % (count/sample size)

4. Study Results

The primary study safety results between 3-15 months for the analysis population that discontinued P2Y₁₂ inhibitor at 3-months in the EVOLVE Short DAPT Study (3-Month DAPT group) are summarized in Table 14 and Table 15.

Co-Primary Endpoints: The study has 2 powered co-primary safety endpoints assessed between 3- and 15- months post index procedure:

- Rate of death from any cause or myocardial infarction (MI)
- Rate of Academic Research Consortium (ARC) definite/probable stent thrombosis (ST), related to the SYNERGY stent.

The EVOLVE Short DAPT study was considered a success. Both of the co-primary endpoints in the 3-month DAPT group implanted with the SYNERGY stent were met.

- Death/MI was non-inferior to 12-month DAPT historical control.
- ARC definite/probable ST related to the SYNERGY stent was significantly lower than the pre-specified performance goal.

Table 14. Co-Primary Endpoint: Death/MI between 3-15 months

12-month DAPT ^a N=1948	3-month DAPT N=1487	Difference [95% CI]	One-sided 97.5% UCB ^b	NI Margin ^c	P-value ^d
5.70%	5.58%	-0.12% [-1.87%, 1.63%]	1.63%	2.52%	0.0016

Numbers are % (count/sample size)

a: The control group for the death/MI primary endpoint includes propensity-matched historical sirolimus, zotarolimus- and everolimus-eluting stent-treated subjects at high risk for bleeding obtained from the PROMUS Element Plus Post-Approval Study (PE+PAS), PE-PROVE Study and the DAPT Study.

b: Z-test upper confidence bound (UCB), c: Non-inferiority margin

d: P value is from one-tailed Z-test and is based on normal approximation to binomial

Subjects with respective event or sufficient follow up were included in the denominator; N=1454 in 3-month DAPT

test group and N=1493 in 12-month DAPT control group

Table 15. Co-Primary Endpoint (3-15-month ARC Definite/Probable Stent Thrombosis Related to SYNERGY)

3-month DAPT (N=1487)	[95% CI]	One-sided 97.5% UCB^a	Performance goal	P-value^b
0.2% (3/1396)	[0.04%, 0.63%]	0.63%	1.0%	0.0005

Numbers are % (count/sample size)

a: Exact test upper confidence bound (UCB)

b: P value is from one-sided exact test for single proportion

Subjects with respective event or sufficient follow up were included in the denominator; N=1397 in 3-month DAPT test group

Secondary Endpoint: The secondary effectiveness endpoint is the rate of bleeding, using the BARC classification (types 2, 3 and 5) between 3- and 15-months post index procedure in subjects not receiving chronic anticoagulation (Table 16). The study secondary endpoint was not proven. However, it is counter-intuitive that a shorter duration of DAPT could be associated with a higher rate of bleeding. This result may be due to better ascertainment of bleeding events in the EVOLVE Short DAPT Study as compared to the historical control that may have contributed to the observed rates*. It should additionally be noted that subjects in need for chronic or lifelong anticoagulation, which accounted for 30.6% of all subjects and 15.3% of subjects with this as their only HBR criterion, were not included in this secondary endpoint assessment.

(*In the current EVOLVE Short DAPT study the full set of bleeding data, which included devices from several manufacturers, was not available from 0-12 months. Because the exact timing of recorded bleeding events could not be determined for some manufacturers who contributed data, Boston Scientific took a worst-case approach and assumed that adjudicated events occurred between 0-3 months and excluded these patients as “not 3-month clear,” censoring the events. The overall contribution to the DAPT Study from this patient subset represented approximately 23% of enrolled subjects).

Table 16. Secondary Endpoint: BARC 2/3/5 Bleeding between 3-15 months

12-month DAPT N=1333	3-month DAPT N=1032	Difference [95% CI]	One-sided 97.5% UCB^a	Superiority Test P-value^b
4.17%	6.26%	2.10% [-0.10%, 4.29%]	4.29%	0.9820

Numbers are % (count/sample size)

a: Z-test upper confidence bound (UCB)

b: P value is from one-tailed Z-test and is based on normal approximation to binomial

Subjects with respective event or sufficient follow up were included in the denominator; N=974 in 3-month DAPT test group and N=947 in 12-month DAPT control group

Other supportive individual and composite safety and effectiveness endpoints between 3 and 15 months are listed in Table 16.

Table 17. EVOLVE Short DAPT Study 3-15 months Outcomes in the 3-Month DAPT group

	SYNERGY (N=1487)
MACCE (death, MI, stroke)	6.9% (101/1457)
MACE (cardiac death, MI, TVR)	5.5% (80/1457)
TVF (TVR, cardiac death or target vessel related MI)	5.0% (73/1457)
Death or MI	5.8% (84/1457)
Cardiac Death or MI	3.6% (52/1457)
Total Death	4.3% (62/1457)
Cardiac Death	2.1% (30/1457)
Non-Cardiac Death	1.9% (27/1457)
MI	1.9% (27/1457)
Q-wave MI	0.2% (3/1457)
Non-Q-wave MI	1.7% (25/1457)
Stroke	1.4% (21/1457)
Bleeding (BARC 2,3,5)	7.1% (103/1457)
BARC 2	4.6% (67/1457)
BARC 3	2.7% (40/1457)
BARC 5	0.2% (3/1457)
Stent Thrombosis, ARC Definite or Probable, Related to SYNERGY	0.2% (3/1457)
TVR, Overall	2.6% (38/1457)
TLR	1.9% (28/1457)

5. Pediatric Extrapolation

In this premarket application, existing clinical data was not leveraged to support approval of a pediatric patient population.

B. Outcome Differences by Gender and Race

Although not powered to evaluate safety or effectiveness of the SYNERGY Stent in gender-specific subgroups, outcome for male and female subgroups from the EVOLVE Short DAPT Study is available (Table 18).

Of the 1,487 subjects that discontinued P2Y₁₂ inhibitor at 3-months in the EVOLVE Short DAPT Study (3-Month DAPT group), 981 patients were male (66%) and 506 patients were female (34%).

In the 3-month DAPT group, the death/MI rate between 3-15 months was 6.1% in males and 5.1% in females. The ARC definite/probable stent thrombosis (related to SYNERGY) rate was 0.3% in males and 0.0% in females. The BARC 2,3,5 bleeding rate was 5.9% in males and 6.0% in females. No differences between male and females were observed for the pre-specified primary and secondary endpoints.

Table 18. EVOLVE Short DAPT Study – Co-Primary and Secondary Endpoints (3-15 months) in the 3-Month DAPT group (n=1487)

	3-Month DAPT Group (N=1487)	
	Male (N=981)	Female (N=506)
Death and MI	6.1% (59/966)	5.1% (25/491)
ARC ST (Definite/Probable) related to SYNERGY stent	0.3% (3/966)	0.0% (0/491)
Bleeding (BARC 2/3/5)	5.9% (37/624)	6.0% (23/386)

Table 19 shows additional safety and effectiveness clinical results for the 3-Month DAPT group between 3-15 months for male and female patients in the EVOLVE Short DAPT Study. Outcomes were similar in male and female patients although the trend suggests fewer ischemic complications in females.

Table 19. EVOLVE Short DAPT Study Clinical Outcomes by Gender; 3-Month DAPT group (3-15 months)

	3-Month DAPT Group (n=1487)	
	SYNERGY Stent Male Subjects (N=981)	SYNERGY Stent Female Subjects (N=506)
TVR, Overall	2.9% (28/966)	2.0% (10/491)
TLR	2.1% (20/966)	1.6% (8/491)
Non-TLR	1.1% (11/966)	1.2% (6/491)
TLF	4.7% (45/966)	3.9% (19/491)
Total Death	4.3% (42/966)	4.1% (20/491)
Death or MI	6.1% (59/966)	5.1% (25/491)
Cardiac Death or MI	3.8% (37/966)	3.1% (15/491)
Cardiac Death	2.1% (20/966)	2.0% (10/491)
Non-Cardiac Death	1.9% (18/966)	1.8% (9/491)
MI	2.0% (19/966)	1.6% (8/491)
Q-wave MI	0.2% (2/966)	0.2% (1/491)
Non-Q-wave MI	1.9% (18/966)	1.4% (7/491)
Stroke	1.2% (12/966)	1.8% (9/491)
BARC 2,3,5 Bleeding	7.0% (68/966)	7.1% (35/491)
BARC 2	5.0% (48/966)	3.9% (19/491)
BARC 3	2.5% (24/966)	3.3% (16/491)
BARC 5	0.1% (1/966)	0.4% (2/491)
ARC Stent Thrombosis	1.2% (12/966)	0.6% (3/491)
Definite or Probable	0.3% (3/966)	0.0% (0/491)
Definite	0.3% (3/966)	0.0% (0/491)
Probable	0.0% (0/966)	0.0% (0/491)

The overall conclusions of the trial regarding the safety of the SYNERGY Stent when used with 3 months of DAPT in patients at high risk of bleeding can be generalized to males and females.

Subgroups based on race/ethnicity for subjects treated in the EVOLVE Short DAPT

Study are available (Table 20). These analyses are intended as exploratory only. Of the 1,487 high bleeding risk subjects that discontinued P2Y₁₂ inhibitor at 3-months in the EVOLVE Short DAPT Study (3-Month DAPT group), 1,159 (77.9%) were Caucasian, 130 (8.7%) Asian, 70 (4.7%) Black or of African Heritage, and 45 (3.0%) Hispanic or Latino. A small number of enrolled subjects were either American Indian, Alaska Native, Native Hawaiian or other Pacific Islander.

**Table 20. CEC Confirmed Major Adverse Events between 3-15 months - by Race/Ethnicity
3-Month DAPT (N=1487 Subjects)**

	Caucasian (N=1159)	Asian (N=130)	Black, African Heritage (N=70)	Hispanic or Latino (N=45)	American Indian or Alaska Native (N=7)	Native Hawaiian or other Pacific Islander (N=1)	Other (N=14)	Not Disclosed (N=66)	Total (N=1487)
TVR, Overall	2.4% (27/1140)	4.7% (6/127)	4.6% (3/65)	2.3% (1/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	1.5% (1/66)	2.6% (38/1457)
TLR	1.8% (20/1140)	3.1% (4/127)	4.6% (3/65)	2.3% (1/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	1.9% (28/1457)
Non-TLR	1.1% (13/1140)	2.4% (3/127)	0.0% (0/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	1.5% (1/66)	1.2% (17/1457)
TVF	4.8% (55/1140)	6.3% (8/127)	12.3% (8/65)	2.3% (1/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	1.5% (1/66)	5.0% (73/1457)
TLF	4.3% (49/1140)	4.7% (6/127)	12.3% (8/65)	2.3% (1/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	4.4% (64/1457)
Total Death	4.2% (48/1140)	4.7% (6/127)	9.2% (6/65)	2.3% (1/43)	0.0% (0/7)	0.0% (0/0)	7.1% (1/14)	0.0% (0/66)	4.3% (62/1457)
Death or MI	5.8% (66/1140)	4.7% (6/127)	12.3% (8/65)	2.3% (1/43)	14.3% (1/7)	0.0% (0/0)	7.1% (1/14)	1.5% (1/66)	5.8% (84/1457)
Cardiac Death or MI	3.6% (41/1140)	1.6% (2/127)	10.8% (7/65)	0.0% (0/43)	14.3% (1/7)	0.0% (0/0)	0.0% (0/14)	1.5% (1/66)	3.6% (52/1457)
Cardiac Death	2.0% (23/1140)	1.6% (2/127)	7.7% (5/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	2.1% (30/1457)
Non-Cardiac Death	1.9% (22/1140)	2.4% (3/127)	1.5% (1/65)	2.3% (1/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	1.9% (27/1457)
MI	1.9% (22/1140)	0.0% (0/127)	4.6% (3/65)	0.0% (0/43)	14.3% (1/7)	0.0% (0/0)	0.0% (0/14)	1.5% (1/66)	1.9% (27/1457)
Q-wave MI	0.3% (3/1140)	0.0% (0/127)	0.0% (0/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	0.2% (3/1457)
Non-Q-wave MI	1.8% (20/1140)	0.0% (0/127)	4.6% (3/65)	0.0% (0/43)	14.3% (1/7)	0.0% (0/0)	0.0% (0/14)	1.5% (1/66)	1.7% (25/1457)
Stroke	1.3% (15/1140)	3.1% (4/127)	0.0% (0/65)	2.3% (1/43)	0.0% (0/7)	0.0% (0/0)	7.1% (1/14)	0.0% (0/66)	1.4% (21/1457)
BARC 2,3,5 Bleeding	6.8% (78/1140)	11.0% (14/127)	3.1% (2/65)	7.0% (3/43)	0.0% (0/7)	0.0% (0/0)	7.1% (1/14)	7.6% (5/66)	7.1% (103/1457)

	Caucasian (N=1159)	Asian (N=130)	Black, African Heritage (N=70)	Hispanic or Latino (N=45)	American Indian or Alaska Native (N=7)	Native Hawaiian or other Pacific Islander (N=1)	Other (N=14)	Not Disclosed (N=66)	Total (N=1487)
BARC 2	4.4% (50/1140)	7.9% (10/127)	1.5% (1/65)	7.0% (3/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	4.5% (3/66)	4.6% (67/1457)
BARC 3	2.8% (32/1140)	3.9% (5/127)	1.5% (1/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	3.0% (2/66)	2.7% (40/1457)
BARC 5	0.2% (2/1140)	0.0% (0/127)	0.0% (0/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	7.1% (1/14)	0.0% (0/66)	0.2% (3/1457)
ARC Stent Thrombosis*	1.2% (14/1140)	0.0% (0/127)	1.5% (1/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	1.0% (15/1457)
Definite or Probable*	0.3% (3/1140)	0.0% (0/127)	0.0% (0/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	0.2% (3/1457)
Definite*	0.3% (3/1140)	0.0% (0/127)	0.0% (0/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	0.2% (3/1457)
Probable*	0.0% (0/1140)	0.0% (0/127)	0.0% (0/65)	0.0% (0/43)	0.0% (0/7)	0.0% (0/0)	0.0% (0/14)	0.0% (0/66)	0.0% (0/1457)

*Related to SYNERGY stent

C. Financial Disclosure

The Financial Disclosure by Clinical Investigators regulation (21 CFR 54) requires applicants who submit a marketing application to include certain information concerning the compensation to, and financial interests and arrangement of, any clinical investigator conducting clinical studies covered by the regulation. The EVOLVE Short DAPT Study included 115 Principal Investigators (including 110 whose site enrolled in the study), none of which were full-time or part-time employees of the sponsor and 14 (including 3 sub-investigators) had disclosable financial interest/arrangements as defined in 21 CFR 54.2(a), (b), (c), and (f) and described below:

- Compensation to the investigator for conducting the study where the value could be influenced by the outcome of the study: 0
- Significant payment of other sorts: 9
- Proprietary interest in the product tested held by the investigator: 0
- Significant equity interest held by investigator in sponsor of covered study: 5

The applicant has adequately disclosed the financial interest/arrangements with clinical investigators. Statistical analyses were conducted by FDA to determine whether the financial interests/arrangements had any impact on the clinical study outcome. The information provided does not raise any questions about the reliability of the data.

XI. PANEL MEETING RECOMMENDATION AND FDA'S POST-PANEL ACTION

In accordance with the provisions of section 515(c)(3) of the act as amended by the Safe Medical Devices Act of 1990, this PMA was not referred to the Cardiovascular Devices Panel, an FDA advisory committee, for review and recommendation because the information in the PMA substantially duplicates information previously reviewed by this panel.

XII. CONCLUSIONS DRAWN FROM PRECLINICAL AND CLINICAL STUDIES

A. Effectiveness Conclusions

The safety and effectiveness of the SYNERGY™ Everolimus-Eluting Platinum Chromium Coronary Stent System (Monorail™ and Over-The-Wire) is based on the results obtained from the following measures: biocompatibility; in vivo pharmacokinetics; in vitro engineering testing; coating characterization; chemistry, manufacturing and controls information; in vivo animal testing; sterilization; stability testing; and clinical studies. These tests revealed the following information:

The in vivo engineering testing conducted on the stent and delivery system(s) demonstrated that the performance characteristics met the product specifications and the coating characterization testing adequately described the important attributes of the everolimus/polymer coating. The chemistry, manufacturing, and controls information ensures that product meeting specifications will be released.

The EVOLVE Short DAPT Study demonstrated that the benefit of freedom from ischemic complications could be maintained with 3-month DAPT in high bleeding risk patients, although the benefit of freedom from bleeding events with shortened DAPT was not confirmed. The inability to claim superiority in reduced bleeding is due to the truly high bleeding risk nature of the enrolled population, the challenges of non-randomized comparisons, and potentially a better ascertainment of bleeding events in the EVOLVE Short DAPT Study.

B. Safety Conclusions

The risks associated with use of Synergy have been evaluated in the clinical studies discussed above along with non-clinical laboratory, animal studies and clinical studies leveraged from the original Synergy PMA approval. The biocompatibility, in vivo pharmacokinetics and in vivo performance characteristics of the product provide a reasonable assurance of safety and acceptability for clinical use.

The EVOLVE Short DAPT study supports the safety of the Synergy stent when used with 3 months DAPT post PCI to treat patients who are at high bleeding risk.

- Death/MI between 3-15 months was observed in 5.58% of the 3-month DAPT test group and 5.70% in the 12-month DAPT control group (difference=-0.12%; 97.5% UCB=1.63%; P=0.0016 for non-inferiority).
- SYNERGY stent-related ARC definite/probable ST between 3-15 months was 0.2% in the 3-month DAPT group (one-sided 97.5% upper confidence bound for the ST rate was significantly less than the performance goal of 1.0%).

C. Benefit-Risk Conclusions

The probable benefits of the Synergy stent when used with 3 months of DAPT post PCI to treat patients at high bleeding risk are based on data collected in the EVOLVE Short DAPT IDE clinical study.

Additional factors to be considered in determining probable risks and benefits for the Synergy stent include characterization of the disease, availability of alternative treatments, quality of the study design and conduct, robustness of analysis of study results, and risk mitigations. Coronary artery disease (CAD) can be accompanied by symptomatic chest pain or silent ischemia which affects patients' quality of life. CAD is treatable, but if left untreated, the condition can progress to further stenosis within the arteries, increased symptoms and the need for revascularization. Available treatments for CAD include medical therapy, percutaneous coronary intervention (PCI) and coronary artery bypass graft (CABG) surgery. When treatment for coronary artery disease beyond medications and lifestyle changes is warranted, patients often choose stent deployment over surgical revascularization due to shorter recovery times and the less invasive nature of PCI. The risks associated with use of drug eluting stents are already well established, and in comparison, to medical therapy, PCI has been shown to reduce the incidence of angina and increase quality of life. Patient tolerance and clinical outcomes of the Synergy stent in the EVOLVE SHORT DAPT study is in line with expectations. The probable benefits of the SYNERGY Everolimus-Eluting Platinum Chromium Coronary Stent System of improving the patient symptoms outweigh the probable risks associated with use of the device.

1. Patient Perspectives

This submission did not include specific information on patient perspectives for this device.

D. Overall Conclusions

The data in this application support the reasonable assurance of safety and effectiveness of this device when used in accordance with the indications for use. Data from the EVOLVE Clinical Program support the safety and effectiveness of the SYNERGY Everolimus-Eluting Platinum Chromium Coronary Stent System for the treatment of de novo atherosclerotic lesions when used in accordance with the Directions for Use (DFU).

In conclusion the leveraged nonclinical data along with the results from the EVOLVE Short DAPT study demonstrate that the Synergy stent provides reasonable assurance of safety and effectiveness for the treatment of patients who are at high bleeding risk, when used according to the proposed indications and in accordance with the Directions for Use (DFU).

XIII. CDRH DECISION

CDRH issued an approval order on August 10, 2020

The applicant's manufacturing facilities have been inspected and found to be in compliance with the device Quality System (QS) regulation (21 CFR 820).

XIV. APPROVAL SPECIFICATIONS

Directions for use: See device labeling.

Hazards to Health from Use of the Device: See Indications, Contraindications, Warnings, Precautions, and Adverse Events in the device labeling.

Post-approval Requirements and Restrictions: See approval order.

XV. REFERENCES

¹ Go AS, Mozaffarian D, Roger VL, et al. Executive Summary: Heart Disease and Stroke Statistics—2014 Update: A Report From the American Heart Association. *Circulation*. 2014;129(3):399-410.

² Mikhail GW, Gerber RT, Cox DA, et al. Influence of Gender on Long-Term Outcomes after Percutaneous Coronary Intervention with the Paclitaxel-Eluting Coronary Stent: Results of the 'TAXUS Woman' Analysis. *J Am Coll Cardiol Intv* 2010;3:1250-9.

³ Hogue CW, Jr., Barzilai B, Pieper KS, et al. Sex differences in neurological outcomes and mortality after cardiac surgery: a society of thoracic surgery national database report. *Circulation*. 2001;103:2133-7.

⁴ Kelsey SF, James M, Holubkov AL, et al. Results of percutaneous transluminal coronary angioplasty in women. 1985-1986 National Heart, Lung, and Blood Institute's Coronary Angioplasty Registry. *Circulation*.1993;87:720-7.

⁵ Chauhan MS, Ho KK, Baim DS, et al. Effect of gender on in-hospital and one-year outcomes after contemporary coronary artery stenting. *Am J Cardiol*. 2005;95:101-4.

⁶ Abbott JD, Vlachos HA, Selzer F, et al. Gender-based outcomes in percutaneous coronary intervention with drug-eluting stents (from the National Heart, Lung, and Blood Institute Dynamic Registry). *Am J Cardiol*. 2007;99:626-31.

⁷ Onuma Y, Kukreja N, Daemen J, et al. Impact of sex on 3-year outcome after percutaneous coronary intervention using bare-metal and drug-eluting stents in previously untreated coronary artery disease: insights from the RESEARCH (Rapamycin-Eluting Stent Evaluated at Rotterdam Cardiology Hospital) and T-SEARCH (TAXUS-Stent Evaluated at Rotterdam Cardiology Hospital) registries. *J Am Coll Cardiol Intv* 2009;2:603–10.