HOSPITAL PHARMACY ADMINISTRATION

HPA Newsletter

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ACC/AHA Guideline Update on Duration of Dual Antiplatelet Therapy in CAD Patients

Special points of interest:

- Latest disease updates
- Latest drugs updates

Inside this issue:

The American College of Cardiology (ACC)/American Heart Association (AHA) issued focused **Update on Duration of Dual Antiplatelet** Therapy in Patients with Coronary Artery Disease.

Although there are several potential combinations of antiplatelet therapy, the term and acronym *DAPT* has been used to specifically refer to combination antiplatelet therapy with aspirin and a $P2Y_{12}$ receptor inhibitor (clopidogrel, prasugrel, or ticagrelor) and will be used similarly in this focused update.

Recommendations in this focused update on duration of DAPT, aspirin dosing in patients treated with DAPT, and timing of elective noncardiac surgery in patients treated with percutaneous coronary intervention (PCI) and DAPT .

These recommendations for duration of DAPT apply to newer-generation stents and, in general, only to those not treated with oral anticoagulant therapy. For the purposes of this focused update, patients with a history of acute coronary syndrome (ACS) >1 year prior who have since remained free of recurrent ACS are considered to have transitioned to stable ischemic heart disease (SIHD) and are addressed in the section on SIHD. Issues and recommendations with regard to $P2Y_{12}$ inhibitor "pretreatment," "preloading," and loading are beyond the scope of this document but are addressed in other guidelines

The following are **key points** to remember **about the updated guideline on duration of dual antiplatelet therapy (DAPT) in patients with coronary artery disease (CAD)**:

1- The scope of this focused update is limited to addressing recommendations on duration of DAPT (aspirin plus a P2Y12 inhibitor) in patients with coronary artery disease (CAD).

2- Intensification of antiplatelet therapy, with the addition of a P2Y12 inhibitor to aspirin monotherapy, and prolongation of DAPT, necessitate a fundamental tradeoff between decreasing ischemic risk and increasing bleeding risk. Decisions regarding treatment with and duration of DAPT require a thoughtful assessment of the benefit/risk ratio, integration of study data, and patient preference.

3- Recommendations in the document apply specifically to duration of P2Y12 inhibitor therapy in patients with CAD treated with DAPT. Aspirin therapy should almost always be continued indefinitely in patients with CAD.

4- Lower daily doses of aspirin, including in patients treated with DAPT, are associated with lower bleeding complications and comparable ischemic protection compared with higher doses of aspirin. The recommended daily dose of aspirin in patients treated with DAPT is 81 mg (range 75–100 mg).

5- In patients with stable ischemic heart disease (SIHD) treated with DAPT after drug-eluting stent (DES) implantation, P2Y12 inhibitor therapy with clopidogrel should be given for at least 6 months (Class I). In patients with SIHD treated with DAPT after bare-metal stent (BMS) implantation, P2Y12 inhibitor therapy (clopidogrel) should be given for a minimum of 1 month (Class I).

6- In patients with SIHD treated with DAPT after BMS or DES implantation who have tolerated DAPT without a bleeding complication and who are not at high bleeding risk (e.g., prior bleeding on DAPT, coagulopathy, oral anticoagulant use), continuation of DAPT with clopidogrel for longer than 1 month in patients treated with BMS or longer than 6 months in patients treated with DES may be reasonable (Class IIb).

7- In patients with acute coronary syndrome (ACS) (non-ST elevation [NSTE]-ACS or ST elevation myocardial infarction [STEMI]) treated with DAPT after BMS or DES implantation, P2Y12 inhibitor therapy (clopidogrel, prasugrel, or ticagrelor) should be given for at least 12 months (Class I).

8- In patients with ACS (NSTE-ACS or STEMI) treated with coronary stent implantation who have tolerated DAPT without a bleeding complication and who are not at high bleeding risk (e.g., prior bleeding on DAPT, coagulopathy, oral anticoagulant use), continuation of DAPT (clopidogrel, prasugrel, or ticagrelor) for longer than 12 months may be reasonable (Class IIb). A new risk score (the "DAPT score"), derived from the Dual Antiplatelet Therapy study, may be useful for decisions about whether to continue (prolong or extend) DAPT in patients treated with coronary stent implantation.

9- In patients with ACS (NSTE-ACS or STEMI) treated with DAPT after coronary stent implantation and in patients with NSTE-ACS treated with medical therapy alone (without revascularization), it is reasonable to use ticagrelor in preference to clopidogrel for maintenance P2Y12 inhibitor therapy (Class IIa). Among those who are not at high risk for bleeding complications and who do not have a history of stroke or transient ischemic attack, it is reasonable to choose prasugrel over clopidogrel for maintenance P2Y12 inhibitor therapy (Class IIa).

10- In patients with ACS (NSTE-ACS or STEMI) being treated with DAPT who undergo coronary artery bypass grafting (CABG), P2Y12 inhibitor therapy should be resumed after CABG to complete 12 months of DAPT therapy after ACS (Class I).

11- In patients with STEMI treated with DAPT in conjunction with fibrinolytic therapy, P2Y12 inhibitor therapy (clopidogrel) should be continued for a minimum of 14 days and ideally at least 12 months (Class I).

12- Elective noncardiac surgery should be delayed 30 days after BMS implantation and optimally 6 months after DES implantation. In patients treated with DAPT after coronary stent implantation who must undergo surgical procedures that mandate the discontinuation of P2Y12 inhibitor therapy, it is recommended that aspirin be continued if possible and the P2Y12 platelet receptor inhibitor be restarted as soon as possible after surgery (Class I).

See more at: http://www.acc.org/latest-in-cardiology/ten-points-to-remember/2016/03/25/14/56/2016-acc-aha-guideline-focused-update-on-duration-of-dapt?w_nav=LC#sthash.WUbamZYV.dpuf

References:

1. ACC/AHA Guideline Update on Duration of Dual Antiplatelet Therapy in CAD Patients - American College of Cardiology [Internet]. American College of Cardiology. 2016 [cited 22 November 2016]. (Click Here)

2. 2016 ACC/AHA Guideline Focused Update on Duration of Dual Antiplatelet Therapy in Patients With Coronary Artery Disease [Internet]. Content.onlinejacc.org. 2016 [cited 22 November 2016]. (Click Here)

FDA approves new device for prevention of recurrent strokes in certain patients

The U.S. Food and Drug Administration today approved the Amplatzer PFO Occluder device. **The PFO Occluder reduces the risk of a stroke in patients who previously had a stroke believed to be caused by a blood clot that passed through a small hole in the heart, called a patent foramen ovale (PFO), and then traveled to the brain.**

The Amplatzer PFO Occluder provides a **non-surgical method** for doctors to **close a PFO**, patients need to be evaluated carefully by a neurologist and cardiologist to rule out other known causes of stroke and help ensure that PFO closure with the device is likely to assist in reducing the risk of a recurrent stroke.

The cause of most strokes can be identified, such as poorly controlled high blood pressure, narrowed blood vessels due to cholesterol deposits and scar tissue (atherosclerosis), or a blood clot caused by an abnormal heart rhythm (atrial fibrillation). However, in some patients, medical tests cannot identify the cause of the stroke, which is referred to as a cryptogenic stroke. In a small percentage of these patients, it is believed that the PFO provided a path for a blood clot to travel to the brain where it blocked a blood vessel resulting in a stroke. Patients with a cryptogenic stroke and a PFO may be at an increased risk of having a second stroke.

The Amplatzer PFO Occluder is inserted through a catheter that is placed in a leg vein and advanced to the heart. It is then implanted close to the hole in the heart between the top right chamber (right atrium) and the top left chamber (left atrium).

The safety and efficacy was assessed in a randomized study that evaluated 499 participants aged 18 to 60 years old who were treated with the Amplatzer PFO Occluder plus blood-thinning medications compared to 481 participants who were treated with blood-thinning medications alone. While the rate of new strokes in both treatment groups was very low, the study found a **50 percent reduction in the rate of new strokes in participants using the Amplatzer PFO Occluder plus blood-thinning medications compared to participants taking only blood-thinning medications.**

Adverse effects associated with the device or the implantation procedure include injury to the heart, irregular and/or rapid heart rate (atrial fibrillation), blood clots in the heart, leg or lung, bleeding and stroke.

The Amplatzer PFO Occluder device should not be used in patients with a heart valve infection or other untreated infections, or a heart tumor or blood clot at the implant site. The device is also contraindicated in patients with other abnormal connections between the heart chambers or in whom the cardiovascular anatomy or blood clots would interfere with the ability to move the catheter used to deliver the device to the heart.

Patients should discuss with their medical team (consisting of a neurologist and a cardiologist) the risks and benefits of PFO closure in comparison to using medications alone.

References:

FDA approves new device for prevention of recurrent strokes in certain patients [Internet]. Fda.gov. 2016 [cited 22 November 2016]. (Click Here)

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Our Newsletter

The Hospital Pharmacy Administration Newsletter aims to publicize up-to-date news, information, resources, and recent healthcare topics that have an impact on the patient's quality of care in addition to practices serving physicians and pharmacists. A main goal of this publication is to send our news and updates on health care drug related issues, recently reported and have direct impact on Clinical and Hospital Pharmacy practice in Egypt.

Hospital Pharmacy Administration (HPA)

Vision

To implement and spread clinical awareness among our hospital pharmacists to ensure better patient quality of care.

Mission

To manage and assure that hospital pharmacists meet each individual patient's drug-related needs through provision of pharmaceutical care services.

Goals and Objectives

Increase awareness of hospital Pharmacists on the importance of applying clinical knowledge in their pharmacy practice through:

- Plotting an appropriate pharmaceutical care plan for each patient according to his medication use strategy.
- Helping healthcare team through promptly responding to drug information requests.
- Integrating patient counseling into the process of dispensing.

NO HARMe

NO HARMe is a national voluntary medication error and 'near miss' reporting program founded for the purpose of sharing the learning experiences from medication errors. Implementation of preventative strategies and system safeguards to decrease the risk for error-induced injury and thereby promote medication safety in healthcare is our collaborative goal.

NO HARMe guarantees confidentiality and security of information received

To report a medication error to NO HARMe:

- Visit our website: www.eda.mohealth.gov.eg or,
- Email us at: medication.errors.system@gmail.com

WHEREVER THE ART OF MEDICINE IS LOVED, THERE IS ALSO A LOVE FOR HUMANITY