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Society Guidelines

2018 Canadian Cardiovascular Society/Canadian Association of Interventional Cardiology Focused Update of the Guidelines for the Use of Antiplatelet Therapy

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ABSTRACT

Antiplatelet therapy (APT) has become an important tool in the treatment and prevention of atherosclerotic events, particularly those associated with coronary artery disease. A large evidence base has evolved regarding the relationship between APT prescription in various clinical contexts and risk/benefit relationships. The Guidelines Committee of the Canadian Cardiovascular Society and Canadian Association of Interventional Cardiology publishes regular updates of its recommendations, taking into consideration the most recent clinical evidence. The present update to the 2011 and 2013 Canadian

RÉSUMÉ

Le traitement antiplaquettaire (TAP) constitue désormais un outil important dans le traitement et la prévention des événements athérosclérotiques, particulièrement ceux qui sont associés à la coronaropathie. Le vaste corpus de données scientifiques a évolué sur la relation entre l'ordonnance de TAP dans les divers contextes cliniques et les rapports bénéfices/risques. Le comité des lignes directrices de la Société canadienne de cardiologie et de l'Association canadienne de cardiologie d'intervention actualise et publie régulièrement ses recommandations en tenant compte des données probantes cliniques

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Members of the Secondary Panel are listed at the end of the article in the Appendix.

The disclosure information of the authors and reviewers is available from the CCS on their guidelines library at www.ccs.ca.

This statement was developed following a thorough consideration of medical literature and the best available evidence and clinical experience. It represents the consensus of a Canadian panel comprised of multidisciplinary experts on this topic with a mandate to formulate disease-specific recommendations. These recommendations are aimed to provide a reasonable and practical approach to care for specialists and allied health professionals obliged with the duty of bestowing optimal care to patients and families, and can be subject to change as scientific knowledge and technology advance and as practice patterns evolve. The statement is not intended to be a substitute for physicians using their individual judgement in managing clinical care in consultation with the patient, with appropriate regard to all the individual circumstances of the patient, diagnostic and treatment options available and available resources. Adherence to these recommendations will not necessarily produce successful outcomes in every case.

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Cardiovascular Society APT guidelines incorporates new evidence on how to optimize APT use, particularly in situations in which few to no data were previously available. The recommendations update focuses on the following primary topics: (1) the duration of dual APT (DAPT) in patients who undergo percutaneous coronary intervention (PCI) for acute coronary syndrome and non-acute coronary syndrome indications; (2) management of DAPT in patients who undergo noncardiac surgery; (3) management of DAPT in patients who undergo elective and semiurgent coronary artery bypass graft surgery; (4) when and how to switch between different oral antiplatelet therapies; and (5) management of antiplatelet and anticoagulant therapy in patients who undergo PCI. For PCI patients, we specifically analyze the particular considerations in patients with atrial fibrillation, mechanical or bioprosthetic valves (including transcatheter aortic valve replacement), venous thromboembolic disease, and established left ventricular thrombus or possible left ventricular thrombus with reduced ejection fraction after ST-segment elevation myocardial infarction. In addition to specific recommendations, we provide values and preferences and practical tips to aid the practicing clinician in the day to day use of these important agents.

les plus récentes. La mise à jour des lignes directrices sur le TAP de la Société canadienne de cardiologie de 2011 et 2013 intègre de nouvelles données probantes sur la façon d'optimiser l'utilisation du TAP, particulièrement dans les situations où il existait peu ou pas de données. La mise à jour des recommandations porte principalement sur les sujets suivants : 1) la durée du double TAP (DTAP) chez les patients qui subissent l'intervention coronarienne percutanée (ICP) en raison d'un syndrome coronarien aigu ou d'un syndrome coronarien non aigu ; 2) la prise en charge du DTAP chez les patients qui subissent une intervention chirurgicale non cardiaque ; 3) la prise en charge du DTAP chez les patients qui subissent un pontage aortocoronarien non urgent ou semi-urgent ; 4) le moment et la façon de passer d'un traitement antiplaquettaire par voie orale à un autre ; 5) la prise en charge du TAP et de l'anticoagulothérapie chez les patients qui subissent une ICP. Chez les patients qui subissent l'ICP, nous analysons notamment les considérations particulières chez les patients qui souffrent de fibrillation auriculaire, qui portent des valves mécaniques ou bioprothétiques (y compris ceux qui ont subi un remplacement valvulaire aortique par cathéter), qui souffrent d'une maladie thromboembolique veineuse et dont le diagnostic de thrombus ventriculaire gauche est établi ou dont le diagnostic de thrombus ventriculaire gauche avec fraction d'éjection réduite après l'infarctus du myocarde avec sus-décalage du segment ST est possible. En plus des recommandations particulières, nous donnons des valeurs, des préférences et des conseils pratiques pour aider le clinicien praticien dans l'utilisation quotidienne de ces importants agents.

Scope of the 2018 Antiplatelet Therapy Guideline Update

This update to the 2011 and 2013 Canadian Cardiovascular Society (CCS) antiplatelet therapy guidelines incorporates new evidence on how to optimally use antiplatelet therapy, particularly in conditions in which few to no data were previously available.[1,2] The recommendations focused on the following topics:

1. The duration of dual antiplatelet therapy (DAPT) in patients who undergo percutaneous coronary intervention (PCI) for acute coronary syndrome (ACS) and non-ACS indications
2. Management of DAPT in patients who undergo noncardiac surgery
3. Management of DAPT in patients who undergo elective and semiurgent coronary artery bypass graft surgery (CABG)
4. When and how to switch between oral antiplatelet therapies
5. Management of antiplatelet and anticoagulant therapy in patients who undergo PCI with atrial fibrillation (AF), mechanical or bioprosthetic valves (including transcatheter aortic valve replacement [TAVR]), venous thromboembolic disease, and established left ventricular (LV) thrombus (LVT) or possible LVT with reduced ejection fraction after ST-segment elevation myocardial infarction (STEMI).

Development of the Guidelines

The CCS appointed co-chairs, a primary panel, and a secondary panel to develop this guideline update. The primary panel developed the scope of the document, identified topics for review, performed the literature review and critical appraisal of the identified literature, drafted the recommendations, and voted on the recommendations. Peer review was provided by the secondary panel and the CCS Guidelines Committee. The final draft was presented and approved by the CCS Executive Committee.

The committee used the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach, which started by defining the question or issue of interest, including the patient population, intervention, comparator, and outcomes.[3,4] A systematic search was performed to identify all relevant studies, including systematic reviews and meta-analyses. The committee reviewed the information from the systematic search and evaluated the quality of evidence for each outcome across the studies. Recommendations were then formulated according to the factors outlined in the GRADE approach. Summaries of the literature review are provided online at www.ccs.ca.

1. Duration of DAPT in Patients Who Undergo PCI

1.1. Duration of DAPT in patients treated with PCI for ACS

The recommended duration of DAPT after ACS and PCI was 12 months on the basis of the results of **C**lopidogrel in **U**nstable Angina to Prevent **R**ecurrent Ischemic **E**vents (CURE) and **C**lopidogrel in **U**nstable Angina to Prevent **R**ecurrent Ischemic **E**vents in Patients Undergoing **P**ercutaneous **C**oronary **I**ntervention (PCI-CURE), respectively.[1,2,5,6] Although a number of recent randomized trials have suggested that DAPT duration may be shortened to 3-6 months after