Consensus Recommendations for Preventing and Managing Bleeding Complications Associated with Novel Oral Anticoagulants in Singapore

Heng Joo Ng, MBBS, MRCP, FRCPath, Yen Lin Chee, MBChB, FRCP, FRCPath, Kuperan Ponnudurai, MBBS, FRCPath, Lay Cheng Lim, MBBS, FRCP, FAMS, Daryl Tan, MMMed, MRCP, FAMS, Jam Chin Tay, MBBS, FRCP, FAMS, Pankaj Kumar Handa, MBBS, FRCP, FAMS, Mufeedha Akbar Ali, MBBS, FRCP, FAMS, Lai Heng Lee, MBBS, MMed, FAMS
For the Chapter of Haematologist, College of Physicians, Academy of Medicine Singapore

Abstract

Introduction: Novel oral anticoagulants (NOACs) have at least equivalent efficacy compared to standard anticoagulants with similar bleeding risk. Optimal management strategies for bleeding complications associated with NOACs are currently unestablished.

Materials and Methods: A working group comprising haematologists and vascular medicine specialists representing the major institutions in Singapore was convened to produce this consensus recommendation. A Medline and EMBASE search was conducted for articles related to the 3 available NOACs (dabigatran, rivaroxaban, apixaban), bleeding and its management. Additional information was obtained from the product monographs and bibliographic search of articles identified. Results: The NOACs still has substantial interactions with a number of drugs for which concomitant administration should best be avoided. As they are renally excreted, albeit to different degrees, NOACs should not be prescribed to patients with creatinine clearance of <30 mLs/min. Meticulous consideration of risk versus benefits should be exercised before starting a patient on a NOAC. In patients presenting with bleeding, risk stratification of the severity of bleeding as well as identification of the source of bleeding should be performed. In life-threatening bleeds, recombinant activated factor VIIa and prothrombin complex may be considered although their effectiveness is currently unsupported by firm clinical evidence. The NOACs have varying effect on the prothrombin time and activated partial thromboplastin time which has to be interpreted with caution. Routine monitoring of drug level is not usually required.

Conclusion: NOACs are an important advancement in antithrombotic management and careful patient selection and monitoring will permit optimisation of their potential and limit bleeding events.

Ann Acad Med Singapore 2013;42:593-602

Key words: Conversion, Drug interactions, Monitoring, Perioperative, Procoagulant agents

1Department of Haematology, Singapore General Hospital, Singapore
2Department of Haematology and Oncology, National University Hospital, Singapore
3Department of Haematology, Tan Tock Seng Hospital, Singapore
4The Blood Specialists, Gleneagles Medical Centre, Singapore
5Raffles Hospital, Singapore
6Department of General Medicine, Tan Tock Seng Hospital, Singapore

Address for Correspondence: Dr Heng Joo Ng, Department of Haematology, Singapore General Hospital, Outram Road, Singapore 169608.

Email: ng.heng.joo@sgh.com.sg