Drug name alert: Potential for confusion between Pradax and Plavix

By Christine Koczmara, RN, BSc, and Sylvia Hyland, BScPhm, MHSc (Bioethics)

Abstract

In this article, the authors highlight an incident that involved a mix-up between the oral anticoagulant medication Pradax (dabigatran etexilate) and the antiplatelet medication Plavix (clopidogrel). Because critical care nurses may admit or care for patients who are receiving (or have received) one of these medications, it is important that they be aware of the potential for confusion between these two drug names throughout the medication-use process.

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The Institute for Safe Medication Practices Canada (ISMP Canada) has received four reports from health care practitioners and one report from a consumer related to the brand names Plavix (clopidogrel) and Pradax (dabigatran etexilate). Two of these reports identified concerns about the potential for confusion between the brand names. Two other reports involved mix-ups that occurred during verbal communication. The fifth report involved a medication incident that occurred during preparation for a procedure to treat a brain aneurysm. In this article the authors focus on the factors leading to this medication incident and the lessons that can be learned from it.

Medication incident

An otherwise healthy patient was scheduled for an endovascular coiling procedure to treat a brain aneurysm. Several days before the procedure, the neurosurgeon wrote a prescription for Plavix 150 mg daily with acetylsalicylic acid (ASA) 325 mg daily. The patient was to take these medications to prevent platelet aggregation and clot formation during, and as a result of, insertion of a foreign substance (the coils) into the vascular system.

The day before the scheduled procedure, the patient was admitted to the hospital as planned. Fortunately, the patient had remembered to bring all current medications to the hospital. During medication reconciliation, the pharmacist noticed that the patient was taking Pradax 150 mg daily instead of the intended Plavix 150 mg daily. The hospital pharmacist called the community pharmacy to discuss the situation. It was determined that the order for Plavix had been misinterpreted and that Pradax had been dispensed in error. The neurosurgeon was notified of the error, and the procedure was postponed.

Discussion

Plavix (clopidogrel) is a platelet aggregation inhibitor that was initially approved in Canada in 1998 for the secondary prevention of vascular ischemic events (myocardial infarction, stroke, vascular death) in patients with a history of symptomatic atherosclerotic disease. The indications for Plavix were expanded to include acute coronary syndrome (ACS), unstable angina, non-Q-wave myocardial infarction, and ST-segment elevation acute myocardial infarction. For the ACS indication, Plavix is to be administered in combination with acetylsalicylic acid (ASA). Most recently, on February 16, 2011, Plavix in combination with acetylsalicylic acid (ASA), was approved for the prevention of atherothrombotic and thromboembolic events, including stroke in patients with atrial fibrillation who have at least one risk factor for vascular events and for whom treatment with an anticoagulant is unsuitable (sanofi-aventis Canada Inc., 2011).

Pradax (dabigatran etexilate) is an oral anticoagulant (direct thrombin inhibitor) that was initially approved in Canada in 2008 for the prevention of venous thromboembolic events in patients who have undergone elective total hip or knee replacement. An additional indication for the use of Pradax, the prevention of stroke and systemic embolism in patients with atrial fibrillation, was approved on October 26, 2010 (Boehringer Ingelheim [Canada] Ltd., 2011).

Plavix is indicated for patients for whom treatment with an anticoagulant is unsuitable. Because Pradax is an anticoagulant, it should not be given to such patients. A mix-up between Plavix and Pradax could have serious consequences. If a patient is supposed to receive Plavix, but Pradax is supplied (e.g., the prescription is written incorrectly or the wrong drug is dispensed) the patient will not experience the desired antiplatelet effect and could be at increased risk of bleeding. Similarly, if a patient is supposed to receive Pradax, but Plavix

is supplied, the patient will not experience the desired anticoagulant effect.

The incident highlighted also demonstrates the importance of practitioners correctly identifying and verifying the medication that a patient has been taking as this can impact the treatment plan.

Both Plavix and Pradax begin with the letter "P," so the two drugs may be stored in close proximity in medication storage areas. In addition, the typical dosage strength for Pradax may overlap with the dosage strength for Plavix, which increases the potential for mix-ups.

Plavix is available in 75 mg and 300 mg tablets. Pradax is available in 75 mg, 110 mg, and 150 mg capsules.

Suggested strategies

- Include the generic name (clopidogrel for Plavix, dabigatran etexilate for Pradax) throughout the medication-use process (e.g., prescribing, transcribing, dispensing).
- If the brand name is being communicated verbally, include its spelling. Consider using a phonetic alphabet (e.g., "R as in Roger") to verify the brand name whenever it is verbally communicated.
- If these two drugs must be stored in a care area, consider opportunities to differentiate the products, such as ensuring that they are not stored in close proximity and/or using a warning label.
- Consider an automated alert (e.g., for computerized prescriber and pharmacy order entry systems).
- Involve patients (and their family members) in the medication-use process. Informed patients and family members can prevent mix-ups. A consumer alert about this issue is also available at **http://www.safemedicationuse.ca/alerts/index.html** and may be shared.
- Support initiatives that foster the use of medication reconciliation. Medication reconciliation is an important safety initiative, and the incident described above highlights its value.
- Share this information to alert other practitioners and to raise awareness of this issue.

ISMP Canada has notified the manufacturers of Pradax and Plavix, as well as other stakeholders about the potential confusion between these drug names.

About the authors

Christine Koczmara is the Senior Medication Safety Analyst with the Institute for Safe Medication Practices Canada (ISMP Canada). Email ***ckoczmara@ismp-canada.org***

Sylvia Hyland is the Vice President and Chief Operating Officer of the Institute for Safe Medication Practices Canada (ISMP Canada).

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ISMP Canada gratefully acknowledges the valuable lessons learned and information reported by professionals in the Canadian health care community that can then be shared to enhance medication system safety. All ISMP Canada Safety bulletins are available from **http://www.ismp-canada.org/ISMPCSafetyBulletins.htm**

ISMP Canada is an independent national not-for-profit organization committed to the advancement of medication safety in all health care settings. ISMP Canada maintains a national voluntary medication incident and 'near miss' reporting program founded for the purpose of sharing the learning experiences from medication errors. Our collaborative goal is implementation of preventive strategies and system safeguards to decrease the risk for error-induced injury.

ISMP Canada is a key partner in the Canadian Medication Incident Reporting and Prevention System (CMIRPS). Medication Incidents (including near misses) can be reported to ISMP Canada:
(i) through the website http://www.ismp-canada.org/err_report.htm or
(ii) by phone: 416-733-3131 or toll free: 1-866-544-7672.

ISMP Canada guarantees confidentiality and security of information received, and respects the wishes of the reporter as to the level of detail to be included in publications.

REFERENCES

Boehringer Ingelheim (Canada) Ltd.(2011, June 13). *Pradax* [product monograph]. Retrieved from http://webprod.hc-sc.gc.ca/dpd-bdpp/item-iteme.do?pm-mp=00013431

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