The National Transportation Safety Board has released a safety study, *Drug Use Trends in Aviation: Assessing the Risk of Pilot Impairment* (to read the study, click here). In response, the Board of Registration in Dentistry, the Board of Registration in Nursing, Board of Registration in Pharmacy, and the Board of Registration of Physician Assistants on behalf of the Massachusetts Department of Public Health, Division of Health Professions Licensure, would like to remind licensees who prescribe and dispense prescription drug products of their obligation to discuss with patients the effects of medical conditions and medications prescribed or dispensed, and encourage licensees to read the article below.

**Board of Registration in Dentistry:**
- **234 CMR 5.06(1)** requires registered dentists to prescribe controlled substances in conformity with M.G.L. c. 94C, its regulations and all applicable state and federal statutes and regulations pertaining to controlled substances.
- **234 CMR 5.06(4)** requires licensed dentists, prior to prescribing a hydrocodone-only extended release medication that is not in an abuse deterrent form, to thoroughly assess the patient, including an evaluation of the patient’s risk factors, substance abuse history, presenting condition(s), current medication(s) and to discuss the risks and benefits of the medication with the patient.
- **Advisory on the Management of Pain** (adopted March 11, 2009 and amended July 20, 2011) advises that Board-licensed dentists are responsible for developing and implementing evidence-based pain management plans that include comprehensive and ongoing pain assessments, appropriate pharmacological and non-pharmacological modalities, and the substantiation of adequate symptom control. Additionally, it advises that dentists maintain effective pain management competencies, as required at M.G.L. c. 94C, § 18(e), that include counseling patients about the side effects of their medications.

For inquiries, after review of the above-referenced information, email dentistry.admin@state.ma.us

**The Board of Registration in Nursing:**
- **244 CMR 4.06** requires those engaged in APRN practice (Nurse Anesthetist, Nurse Midwife, Nurse Practitioner and Psychiatric Clinical Nurse Specialist) to perform health education and counseling for patients.
- **244 CMR 4.07(3)** requires the APRN, prior to prescribing a hydrocodone-only extended release medication that is not in an abuse deterrent form, to thoroughly assess the patient, including an evaluation of the patient’s risk factors, substance abuse history, presenting condition(s), current medication(s) and to discuss the risks and benefits of the medication with the patient.
- **Advisory Ruling 09-01: Management of Pain** provides guidance to Massachusetts nurses with prescriptive authority and specifies that all nurses are responsible and accountable for engaging in the practice of nursing in accordance with accepted standards of care which include, among others, the provision of patient, family/significant other and/or caregiver education; and that APRNs with prescriptive authority will acquire and maintain competencies, as required at MGL c. 94C, § 18(e), that include counseling patients about the side effects of their medications.

For inquiries, after review of the above-referenced information, email nursing.admin@state.ma.us
The Board of Registration in Pharmacy:
  o M.G.L. 94C, § 21A and 247 CMR 9.07 Maintaining Patient Records, Conducting a Prospective Drug Utilization Review and Patient Counseling requires a pharmacist to maintain patient records and conduct a prospective drug utilization review (DUR) before each new prescription is dispensed. A DUR may alert a pharmacist to medical conditions or prescriptions that may result in consultation with the patient or prescriber.
  o 247 CMR 9.07 (3) further requires that a pharmacist or designee offer the services of a pharmacist to discuss, with all patients presenting new prescriptions, issues that in the pharmacist’s professional judgment are deemed to be significant for the health and safety of the patient, including the patient’s ability to safely operate vehicles and machinery.
  o 247 CMR 9.04(8)(e) requires a pharmacist to counsel patients regarding the use of hydrocodone-only extended release medication that is not in an abuse deterrent form.
  o 2009-01, Policy on the Management of Pain was implemented to ensure patient access to appropriate and effective pain management. This policy outlines best practices when dispensing controlled substances for pain management.
For inquiries, after review of the above-referenced information, email pharmacy.admin@massmail.state.ma.us

The Board of Registration of Physician Assistants:
  o 263 CMR 5.07 Prescription Practices of a Physician Assistant requires a Physician Assistants to follow the guidelines of the Board of Registration in Medicine for the use of Controlled substances for the treatment of pain.
  o 2009-01 Policy on Management of Pain outlines pain management practices including counseling of patients about side effects of controlled substances.
  o 263 CMR 5.07 (12) Prescribing Hydrocodone-Only Extended-Release Medication. Prior to prescribing a hydrocodone-only extended release medication that is not in an abuse deterrent form, a licensee must assess the patient, including an evaluation of the patient’s risk factors, substance abuse history, presenting condition(s), current medication(s) and a check of the online Prescription Monitoring Program and discuss the risks and benefits of the medication with the patient.
For inquiries, after review of the above-referenced information, email multiboard.admin@state.ma.us
Evidence That Pilots Are Increasingly Using Over-the-Counter, Prescription, and Illicit Drugs

The National Transportation Safety Board (NTSB) recently analyzed toxicology tests from 6,677 pilots who died in a total of 6,597 aviation accidents between 1990 and 2012. The results demonstrate a significant increase in the use of a variety of potentially impairing drugs.

The study found significantly increasing trends in pilots' use of all drugs, potentially impairing drugs (those with a US Food and Drug Administration warning about sedation or behavior changes in routine use), controlled substances, and illicit drugs (those defined as Schedule I by the US Drug Enforcement Administration). The final report, Drug Use Trends in Aviation: Assessing the Risk of Pilot Impairment, is available on the NTSB's Safety Studies web page under report number SS-14/01.

In this study, the pilot was considered to be positive for a drug if it could be qualitatively or quantitatively identified in blood or tissue; drugs identified only in urine or used as part of resuscitative efforts were excluded.

Overall, 98% of the study pilots were male and 96% were flying privately rather than for commercial purposes. The average age of study pilots increased from 46 to 57 years over the study period.

Over the course of the study, for fatally injured pilots, the following was found:

- The proportion of pilots testing positive for at least one drug increased from 10% to 40%.
- More than 20% of all pilots from 2008-2012 were positive for a potentially impairing drug, and 6% of all pilots were positive for more than one potentially impairing drug.
- Overall, the most common potentially impairing drug pilots had used was diphenhydramine, a sedating antihistamine (the active ingredient in many Benadryl and Unisom products).
- During the most recent 5 years studied, 8% of all pilots tested positive for controlled substances; hydrocodone and diazepam each accounted for 20% of the positive findings.
- The percentage of pilots testing positive for marijuana use increased to about 3% during the study period, mostly in the last 10 years.

The large increase in the proportion of fatally injured pilots with evidence of potentially impairing drugs suggests an increasing risk of impairment in general aviation. Aviation is the only transportation mode in which a fatally injured operator (pilot) routinely undergoes extensive toxicology testing; no similar testing is routinely performed for fatally injured operators of boats, trains, trucks, or cars. Given the general increase in drug use in the population, it is likely that there has been a similar trend in drug use among operators across all modes of transportation.

These results highlight the importance of routine discussions between health care providers and pharmacists and their patients about the potential risks that drugs and medical conditions can create when patients are operating a vehicle in any mode of transportation.