

**Journal Club**  
**Department of Anesthesiology**  
**University of Ottawa**

**Date: September 18, 2006**

**Location: Royal Room, General Campus of the Ottawa Hospital.**

**Meals and beverages will be available at 17h30.**

**The Journal Club will start at 18h00 to finish at 19h30.**

**Theme of the Journal Club: “Bupivacaine cardiotoxicity: have we found means to treat it?”**

**Articles selected by Jean-Yves Dupuis, MD, FRCPC**

**Objectives:**

- 1) Review the epidemiological data related to bupivacaine-induced cardiac arrest.
- 2) Review the data supporting the use of intralipids to reverse bupivacaine cardiotoxicity.
- 3) Discuss the relevance of Weinberg’s recommendation to have 20% lipid emulsion readily available in all operating rooms where bupivacaine is used.
- 4) Review the evidence supporting the use of nanoparticles to treat bupivacaine cardiotoxicity.

**Articles and Presenters:**

- 1) Weinberg G, et al. Lipid emulsion infusion rescues dogs from bupivacaine-induced cardiac toxicity. *Reg Anesth Pain Med* 2003;28:198-202.  
*This article is accompanied by an editorial from Groban L, Butterworth J in: Reg Anesth Pain Med 2003;28:167-9.*  
Presenter: Leilani Doyle, PGY3.
- 2) Rosenblatt MA, et al. Successful use of a 20% lipid emulsion to resuscitate a patient after a presumed bupivacaine-related cardiac arrest. *Anesthesiology* 2006;105:217-8 (Case report).  
*This article is accompanied by an editorial from Weinberg G in: Anesthesiology 2006;105:7-8.*  
Presenter: Ivan Hsia, PGY3
- 3) Morey TE, et al. Treatment of local anesthetic-induced cardiotoxicity using drug scavenging nanoparticles. *Nano Lett* 2004;4:757-9.  
*This article is accompanied by another paper written by one of our faculty members, Dr. E. Renehan. Scavenging nanoparticles: An emerging treatment for local anesthetic toxicity (Translational Vignette); Reg Anesth 2005;30:380-4*  
Presenter: Kelly Shinkaruk, PGY3

An additional article is provided to help in preparing this Journal Club:

Maher LE, et al. Acute toxicity of local anesthetics: Underlying pharmacokinetics and pharmacodynamic concepts (Review article). *Reg Anesth Pain Med* 2005;30:553-66.

*The Journal Club is an accredited group learning activity, as defined in Section 1 of the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.*

***Special thanks to Baxter Pharma for sponsoring this event.***