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Re: dexamethasone sodium phosphate **From:** Jasmine Dhillon, DVM

Case No. SK-033011-7312 **Date:** April 2nd, 2011

Comments: *Dexamethasone sodium phosphate IM 1cc/20 kg for treatment of lameness in 10 gilts*

Dexamethasone is not approved for use in swine in Canada. There is no MRL for dexamethasone in swine in Canada, so any amount detected at slaughter will constitute a violative residue. The CFIA has very sensitive methodology for detecting steroids in animal tissues.

A search of CAB abstracts, Agricola, PubMed, and the FARAD database did not yield any information on the pharmacokinetics of dexamethasone in swine. The EMEA website provides limited information about residue depletion for dexamethasone in pigs: "studies in cattle and pigs indicate that dexamethasone residues are quickly eliminated from muscle, depletion rate in liver is the slowest hence it is the target tissue". Following IM administration of 0.06 mg/kg dexamethasone phosphate to pigs (1/2 your dose), residues in all tissue samples taken 1, 2 and 4 days after treatment were below the limit of quantification (2.5 ppb for liver, 0.5 ppb for other tissues). However, the CFIA is able to detect far smaller quantities than what was published in this article. Historically, CgFARAD has recommended following a 2 day withdrawal for dexamethasone sodium phosphate in swine up to a dose of 0.3 mg/kg.

Appropriate extra-label drug use (ELDU) assumes that there are no other approved pharmaceutical options available. Since Predef 2X (isoflupredone) is approved for use in swine in Canada, we suggest that you use the approved corticosteroid product if one is indicated for the case at hand.

Therefore, the Canadian gFARAD recommends a **withdrawal interval of 2 days**, which should be sufficient so that detectable residues are not found. Because the Canadian gFARAD withdrawal recommendation is not an official withdrawal time and is based on data that has not been reviewed nor approved by the Veterinary Drugs Directorate or the Canadian Food Inspection Agency, responsibility for residue violations rests with the attending veterinarian.