

**THE USE OF CONTRACEPTIVE IMPLANTS (SUPRELORIN) TO CONTROL UNWANTED DOG POPULATIONS ON FIRST NATIONS RESERVES – A RETROSPECTIVE STUDY**

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One hundred and forty-one non-surgical contraceptive implants Suprelorin were administered to free-roaming female dogs on two Alberta reserves from 2009 to 2012 to prevent litter production. Although female dogs from 3 months to 8 years of age were implanted, lactating and prepubescent females (4-6 months old) were targeted. These females were identified with a microchip, given deworming medication, rabies vaccination and dog food. Ninety-six dogs were implanted the first time and 44 have been re-implanted at intervals of 12-24 months: 37 dogs re-implanted a second time, and 7 a third time. None of the re-implanted dogs have produced litters. One implant broke while being inserted due to poor dog restraint and was discarded. Of the 52 dogs that did not receive another implant, 10 of 52 (19.2%) are still being monitored post implant, 7 of 52 (13.5%) died from various causes but survived at least 2 months post implant without litter production, 7 dogs were later spayed (all but one at least 2 months post-implant) and 28 of 52 (53.8%) females were never seen again after implantation, theft and wandering off being the most commonly reported causes.

One implanted female produced a litter 9 months later suggesting definite implant failure. While 66 of 96 (68.8%) of implanted females did not produce a litter 12-24 months post implant, 6 of 96 (6.25%) of these produced a litter within 2 months of implantation. These 6 females were unknowingly pregnant at the time of implantation, produced a normal litter and did not return into heat 12-24 months later. Fourteen females received an implant while lactating and within two weeks of implantation, healthy puppies were removed for adoption. None of these return into heat for at least 12 months. Data collection is on going for females implanted in 2011 and 2012.

Although this form of contraception was deemed successful, affordable and suitable for dogs with limited life expectancy such as rez dogs, six crucial factors were found necessary for this method to be integrated into an effective dog population management program. These are dogs' degree of ferity, ownership status, reproductive status, geographical boundaries of targeted dogs and cultural sensibilities of human populations harboring targeted dogs. Time of the year was the sixth and most important factor, particularly if limited funding is a major consideration as for this project.

<b>Outcome</b>	<b>Number of dogs</b>
No litters produced; re-implanted at 12-24 mos.	37*
No litters produced; not re-implanted; still being monitored	10
No litters produced; died	7
No litters produced; eventually spayed	7
Litter produced within 2 months following implantation	6**
Litter produced 9 months after implantation	1
Disappeared	28
<i>Total receiving first implant</i>	<i>96</i>

Table 1 – Outcomes following implantation of 96 dogs with Suprelorin

\*No dogs re-implanted have produced litters; seven of these dogs have received a third implant.

\*\* Implanted while pregnant