**IV Regional Block**

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| Purpose/Aim | * Blocking of limb to provide local analgesia to area below tourniquet
* Used for surgery on the foot such as amputation of a digit, tumor removal
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| Advantages  | * Possible to perform surgery on a standing animal, reduce risks associated with general anesthesia, no need for anesthesiologist
* Use of local anesthesia reduces volume of general anaesthetics, if used Low risk of infection
* Rapid effect of analgesia
* Simple technique
* No complex equipment required
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| Drugs | 2% Lidocaine Also possible - Bupivacaine, Mepivacaine | 5 - 10 ccs  | Used 10 ccs lidocaine in cow #138, weighing ~ 400 kg |
| Landmarks | Forelimb:  | * Dorsal metacarpal vein
* Palmar digital vein
* Dorsal digital vein
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|  | Hindlimb:  | * Lateral saphenous vein, cranial or lateral branches
* Lateral plantar vein
* Lateral plantar digital vein
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| Procedure/Technique | 1. Adequately restrain animal.
2. Apply tourniquet proximal to carpus/tarsus. Allow a few minutes for vein to engorge
3. Clean and shave the area to be injected
4. Insert a butterfly catheter into the vein, and then inject 5-10 ccs of lidocaine with syringe.
5. Remove needle, apply pressure immediately and massage to prevent haematoma
6. Wait 10 - 15 minutes for drug to take effect
7. Leave tourniquet in place for maximum 90 minutes to maintain effect of anaesthesia
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| Complications | * Cardiac arrhythmia or cardiac arrest due to injection of lidocaine in vein with inadequate tourniquet
* Failure of effect - due to failure of tourniquet [too loose] or insufficient time
* Haematoma at site of insertion of catheter/injection
* Further local analgesia may be required to completely anaesthetize the area between the digits
 |  | Special consideration was taken not to exceed half of the toxic dose in cattle across all 5 procedures performed.  |