

Pig clinical examinations, on farm diagnostics and common diseases on New Zealand lifestyle blocks

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Lifestyle block pigs present unique challenges for veterinarians. Limited handling facilities, poor patient cooperation, and difficulties in diagnostics and treatment make providing veterinary care complex, requiring specialized approaches and practical solutions. Veterinarians frequently encounter parasitism, nutritional imbalances, overgrown hooves, and dental disease in pet pigs. This paper outlines best practices for safe clinical exams, sedation protocols, common disease recognition, on-farm diagnostics, and practical treatment strategies.

Safe clinical examination of lifestyle block pigs

Pigs can be unpredictable and difficult to restrain. Best practices for safety and efficiency begin with pre-exam preparation. It is important to communicate with the owner beforehand to assess the pig's behavior and ensure a secure pen or confined area is available for examination. When handling the pig, it is helpful to use pig boards or sturdy portable yarding equipment, and to seriously consider using sedation aids if safe handling is not possible. Minimizing stress during the exam is crucial, which involves working quietly, avoiding loud noises, and restraining the pig as minimally as possible. Before approaching the animal, it is important to carry out a distance examination by observing its gait, posture, and breathing to gather valuable information. Using treats or allowing the pig to interact with familiar people can encourage cooperation. Additionally, care must be taken with adult pigs due to their tusks and strength, which can pose risks to the veterinarian.

Common diseases in lifestyle block pigs in New Zealand

Pigs on lifestyle blocks may not receive routine preventative veterinary interventions, making them more susceptible to common diseases. These include dental disease, respiratory diseases (especially secondary to dental disease), and lameness due to overgrown hooves, often caused by poor flooring or lack of wear. Obesity and other metabolic issues often arise from overfeeding, and parasitism – both internal (e.g. *Ascaris suum*) and external (e.g. lice, mange) – is prevalent. Erysipelas, characterised by sudden death, fever, and skin lesions, is another common issue and vaccination is recommended to prevent it.

Basic on-farm diagnostic techniques

Given the limitations of lifestyle blocks, on-farm diagnostics must be simple yet reliable. From the author's experience, sedation is almost always required in order to safely collect viable blood samples for on farm diagnostics. For blood sampling from the ear vein, the auricular external pinna should be clipped, cleaned and prepped with methylated spirits, a 21–23G needle should be used and gentle pressure should be applied once the vein is visible. Blood is collected by allowing it to drip into 1.3ml serum, heparin and EDTA blood tubes, respectively. Glucometer and ketometer strips, commonly used for human diabetes, can be applied to fresh ear vein blood sample to assess hypoglycemia or ketosis. To measure packed cell volume (PCV) and total protein (TP), blood is collected in a microhematocrit tube, which is spun using a microcentrifuge on farm. The PCV is measured directly, while the tube is broken to assess TP with a refractometer, both of which are useful in assessing hydration status, anemia, and general health in any unwell pig patient. Faecal samples are collected

blood samples can subsequently be analysed in house or at diagnostic labs for more comprehensive disease screening.

Sedation combinations for lifestyle block pigs

Effective sedation is necessary for clinical exams or minor procedures, as pigs on lifestyle blocks often exhibit challenging temperaments. Several sedation protocols are suitable, with drug combinations and dosages determined by factors such as the procedure type, pig size, temperament, and available facilities. Before sedation, it is essential to separate the pig from the herd and reduce stress. This helps to minimize the necessary dosage and improves safety. Injection is typically administered intramuscularly (IM) behind the ear. Monitoring the pig for hypoventilation, hypothermia, bradycardia, or prolonged recovery is necessary, as these complications may arise. Effective sedation requires planning. Suitable protocols include:

Combination	Drug	Dose (mg/kg IM)	Notes
Medetomidine + Butorphanol + Ketamine	Medetomidine	0.04–0.08	Reversible with atipamezole
	Butorphanol	0.2–0.4	Smooths recovery
	Ketamine	5–10	Effective dissociative agent
Midazolam + Ketamine	Midazolam	0.2–0.5	Anxiolysis, muscle relaxation
	Ketamine	10–20	Minor procedures
Tiletamine-Zolazepam (Zoletil®) bottle + Ketamine 100mg/ml 2ml + Xylazine (10%) 4ml	Combined	1ml/25kg	Rapid, potent sedation
Xylazine (10%) + Ketamine + Butorphanol	Xylazine	1–2	Reversible with atipamezole
	Ketamine	5–10	Depth for short procedures
	Butorphanol	0.2–0.4	Opioid analgesia

Medetomidine reversal: Atipamezole is used for reversal, administered at 0.2–0.4mg/kg IM (typically a 1:1 dose). This reversal agent works within 5–10 minutes. Xylazine reversal: Atipamezole is used at a dose of 0.15–0.25mg/kg IM, particularly if recovery is prolonged or cardiovascular effects occur.

Dental disease and mandibular osteomyelitis in Kunekune pigs

The author has found that the single most common disease process diagnosed in lifestyle block pet kune kune pigs is dental disease, almost always with secondary osteomyelitis. Affected pigs presented with inappetence, difficulty eating harder feed material or facial swelling near the base of the ear, which eventually ruptured to discharge food material. In some cases, severe oral lesions were an incidental finding during routine sedation visits for hoof trimming. Intraoral examination revealed openings near the last molar teeth, where masticated feed had entered the mandible, causing infection and progressive bone erosion (Figure 2).

Contributing factors include the anatomical predisposition of Kunekune pigs, which have short, upturned snouts and compact jaws that lead to dental crowding and increase the risk of impaction. These pigs are more likely to develop dental issues as a result of malpositioned teeth in the limited space of their mandibles.

Clinical signs include facial swelling, discharging lesions, and visible defects near the molars. Chronic cases may develop fistulas, connecting the oral cavity to the skin. Diagnosis can be made through imaging, such as radiographs or CT scans, to assess the extent of bone involvement (Figures 1, 3). Treatment often requires surgical debridement of necrotic bone and the extraction of affected teeth, in addition to targeted antibiotic therapy based on culture and sensitivity testing. Preventive care, including regular dental examinations, can help mitigate the risk of such conditions.

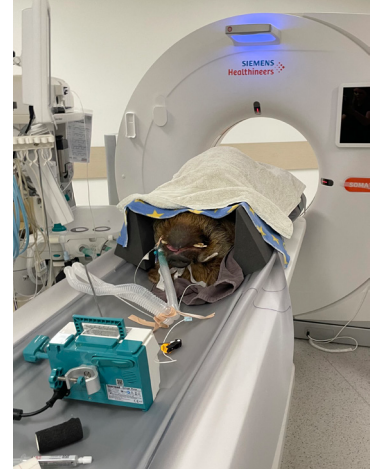
Figure 1. Example of digital radiography being carried out on-farm to diagnose dental disease under sedation.



Figure 2. Example of severe dental disease with secondary mandibular osteomyelitis in a four-year-old kune kune pig.



Figure 3. CT advanced imaging being carried out on our patient at Animal Referral Centre in Auckland.



Conclusion

Improving veterinary care for lifestyle block pigs in New Zealand requires field-adapted techniques, early disease recognition, and safe sedation practices. By enhancing skills in clinical evaluation and treatment, and with a better understanding of common conditions such as dental disease, parasitism, and metabolic disorders, veterinarians can significantly improve the welfare and health outcomes of these animals.

