ANNEX I
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The Scientific Program Committee reserves the right to determine whether

Interobserver agreement of a quick-scan lung ultrasound method in calves

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To rationalize antimicrobial use in calves, distinguishing animals with bronchopneumonia from those with an upper respiratory tract infection is essential. Of all diagnostic methods, achievable in practice, thoracic ultrasound has been shown to be most accurate to detect pneumonia. However, different scanning protocols have been described, and their interobserver agreement not determined. To be economically sustainable in practice, the scanning procedure needs to be as quickly as possible. Also, the learning curve needs to be short, to allow veterinarians to start using this technique in a reliable way as quickly as possible. Therefore, in the present study the UGhent quick-scan method and algorithm was demonstrated to two novice observers and their performance after one session was compared with an experienced operator. At a commercial veal farm, 50 calves aged 8-12 weeks, were scanned by three operators (two novice and 1 experienced (2 years)). A consolidation of any size was considered as pneumonia and a positive test result. Percentage of agreement, kappa statistics, prevalence and bias index were used to characterize inter-observer agreement. Of the calves, based on the experienced operator, 32.0% (16/50) showed consolidation, of which 43.8% (7/16) only left, 12.5% (2/16) only right, and 43.8% (7/16) on both sides. Percentage of agreement and kappa values between novice 1 and the experienced observer, and novice 2 and the experienced observer were in each case 78% and 0.38, respectively. Percentage of agreement and kappa value between both novices was 96.0% and 0.78, respectively. Agreement between the novices and the experienced operator was better on the right lung lobe than on the left lung lobe, likely because the right cranial lobes can more easy be visualized. The mean scanning time (± standard deviation) pro calf was 50 ± 11 sec. for the experienced operator, and 117 sec. ±31 and 131 sec. ±52 for novice operator 1 and 2, respectively. In conclusion, the present study suggests that this scanning protocol and training session have a fast learning curve to achieve an accuracy above clinical diagnosis alone. However, exercise to perfect the and quicken the scanning method is required make it an economically justifiable procedure in herd health management.