Impact of stopping PRRS MLV vaccination in piglets in a malaysian farm

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INTRODUCTION

Porcine reproductive and respiratory syndrome virus (PRRSv) is endemic in Malaysia with 89 % prevalence and it is one of the most important viral diseases in Malaysia pig farming industry[1]. Respiratory syndrom is a common clinical manifestation of disease. As PRRS disease control often requires a long term holistic approach, a farm had decided to stop PRRS vaccination due to expectations of short term returns and vaccination cost concerns. The aim of this article is to demonstrate the impact of stopping PRRS MLV vaccination in piglets in a high pig density area in Malaysia.

MATERIALS AND METHODS

This farm is a single site farrow to finish farm with 1200 sows in a high density pig farming area in Malaysia. The farm is positive for PRRS, M.Hyo, PCV2, CSF, APP, AR and PRV. A VR-2332 based PRRS modified live virus (MLV) vaccine was used as a part of the PRRS control strategy. Quarterly mass vaccination was practiced in the breeding herd since June 2014 and piglet vaccination with PRRS MLV at 2 weeks old was initiated. The starter, grower and finisher losses were recorded and retrospective study was done 7 months before and after PRRS vaccination in the piglets was stopped (from June 2015 until July 2016). To evaluate the impact of stopping PRRS vaccination in the porker herd, mortality rate was compared between the two groups using statistical process control (SPC) chart, generated by Minitab ver 17.

RESULTS

Figure 1: SPC I Chart for the starter mortality rate

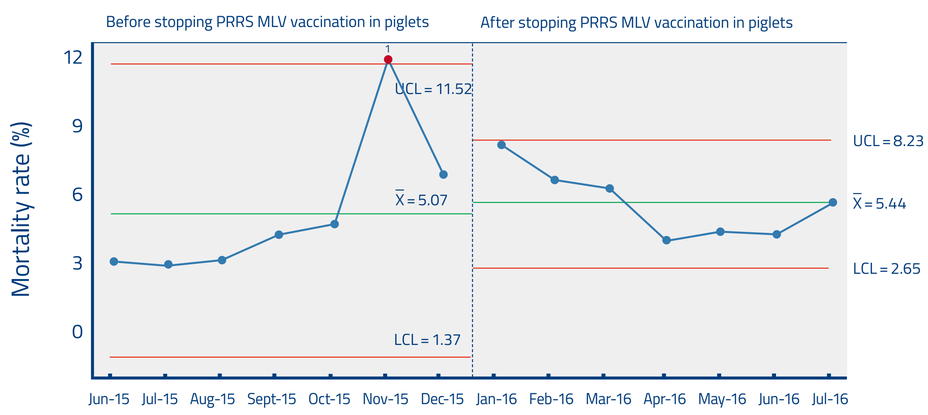


Figure 2: SPC I Chart for the grower mortality rate

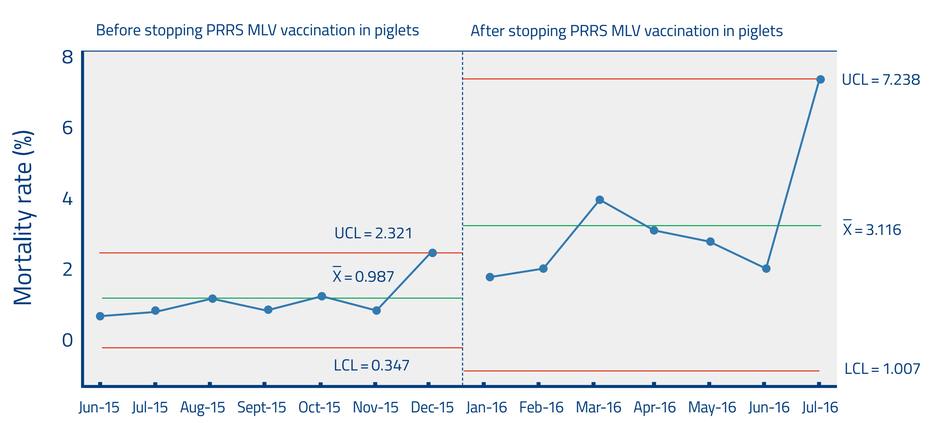
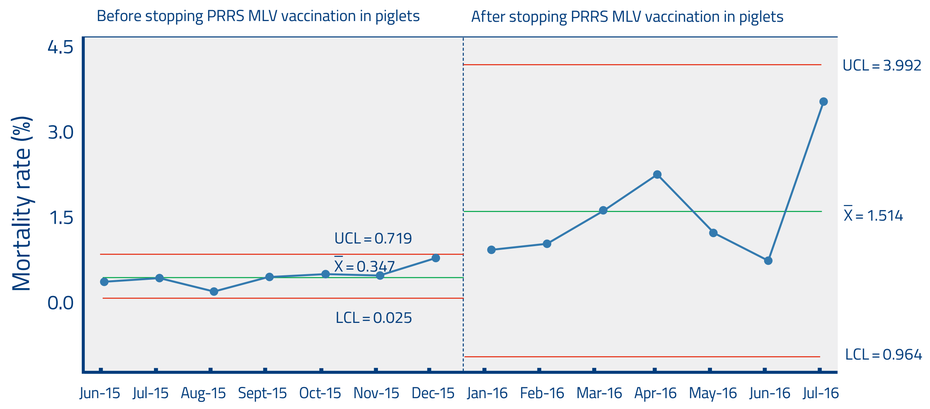


Figure 3: SPC I Chart for the finisher mortality rate



DISCUSSION AND CONCLUSION

Based on the SPC chart, the average starter mortality rose from 5.07 % to 5.44 %, the average grower mortality rose from 0.987 % to 3.116 %, and the average finisher mortality rose from 0.347 % to 1.514% after stopping the PRRS MLV vaccination. As the pigs appeared to slaughter age, the rise in the mortality rate became more evident. Besides, the mortality rate spiked following the increase in the number of subpopulation (unvaccinated pigs) in the farm with time too. Stopping PRRS MLV vaccination will reduce the vaccination cost, but actually the farm suffered even more economic losses from the higher mortality rate of the pigs. This finding was consistent with the study done by Duangwhae et al in 2016 which also showed that stopping PRRS MLV vaccination resulted in big economic loss in a farm in Thailand[2]. All in all, a long term whole herd PRRS MLV vaccination approach is vital to reduce the losses in the farm due to PRRS infection.

REFERENCES

1. Kiu VTL et al UPM 7th Seminar in Veterinary Sciences, 2012.
2. Duangwhae et al, IPVS 2016