Factors affecting the incidence of calf diarrhea in Iranian Holstein dairy herds
Azizzadeh, M., Ferdowsi University of Mashhad, Department of Clinical Science, Iran; m-azizzadeh@um.ac.ir

Neonatal calf diarrhea is one of the most important causes of economic loss in dairy herds. The objective of this study was to identify risk factors associated with the incidence of calf diarrhea in large dairy herds in Iran. 3214 calves which were born in eight dairy herds between 21 March 2009 and 20 March 2010, were followed for 90 days after birth. For each live birth, the sex of calf, the parity of the dam, the type of parturition and season of birth were retrieved. Also, occurrence of diarrhea before 90 days of age was recorded. Logistic regression model was used to evaluate the effects of explanatory variables on occurrence of calf diarrhea. 1550 (48.2%) of calves were affected with diarrhea. Incidence risk of calf diarrhea was 22 per 100 animal-month at risk. Calves born in the summer had a significantly higher risk of diarrhea [OR: 1.73 (95% CI: 1.42-2.10)] than winter-born calves. Calves born from a difficult calving had an odds ratio of 1.43 (95% CI: 1.13-1.80) of diarrhea compared with those born from a normal calving. Also, probability of occurrence of calf diarrhea for calves born from multiparous dairy cows were 1.39 (95% CI: 1.20-1.62) times greater than those born from primiparous dairy cows. The results showed that high proportion of calves are affected with diarrhea during the preweaning period in Iranian dairy herds indicating economic importance and that environmental and management factors affect the incidence risk of calf diarrhea.