

CORRIGENDUM

Using milk leukocyte differentials for diagnosis of subclinical bovine mastitis – CORRIGENDUM

Juliano Leonel Gonçalves, Roberta L. Lyman, Mitchell Hockett, Rudy Rodriguez, Marcos Veiga dos Santos and Kevin L. Anderson

doi:10.1017/S0022029917000267, Published online by Cambridge University Press, 27 June 2017

The authors would like to apologise for a mistake in the above-mentioned article by Gonçalves *et al.* Checking the data, it was found that the position of false-positive and false-negative results were accidentally reversed when calculating sensitivity and specificity.

The following errors have been noted:

On the first page, in the abstract:

‘When MC was considered the gold standard for mastitis diagnosis, the calculated diagnostic *Se* of the MLD was 65·4% ($IC_{95\%} = 57·4$ to 72·8%) and the *Sp* was 79·3% ($IC_{95\%} = 71·4$ to 85·7%).’

Should read:

‘When MC was considered the gold standard for mastitis diagnosis, the calculated diagnostic *Se* of the MLD was 78·5% ($IC_{95\%} = 70·4$ to 85·2%) and the *Sp* was 66·5% ($IC_{95\%} = 58·6$ to 73·7%).’

On page 313, in the second column:

‘When MC was considered the gold standard for mastitis diagnosis, the calculated diagnostic *Se* of the MLD was 65·4% ($IC_{95\%} = 57·4$ to 72·8%) and the *Sp* was 79·3% ($IC_{95\%} = 71·4$ to 85·7%). Using MC results as the ‘gold standard,’ *Se* and *Sp* of the categorical instrument readout results (healthy or infected) based upon cut-offs ranging from 1–12 are shown in Fig. 2. Sensitivity progressively increased from a minimum of 50·4% at a user setting of 1 to a maximum of 71·3% at a setting of 12 (Fig. 2). Specificity progressively decreased from a maximum of 86·7% at user setting 1 to 66·7% at setting 12 (Fig. 2).’

Should read:

‘When MC was considered the gold standard for mastitis diagnosis, the calculated diagnostic *Se* of the MLD was 78·5% ($IC_{95\%} = 70·4$ to 85·2%) and the *Sp* was 66·5% ($IC_{95\%} = 58·6$ to 73·7%). Using MC results as the ‘gold standard,’ *Se* and *Sp* of the categorical instrument readout results (healthy or infected) based upon cut-offs ranging from 1–12 are shown in Fig. 2. Sensitivity progressively decreased from a maximum of 95·4% at a user setting of 1 to a minimum of 47·7% at a setting of 12 (Fig. 2). Specificity progressively increased from a minimum of 24·2% at user setting 1 to 84·5% at setting 12 (Fig. 2).’

On page 314, In Figure 2, the sensitivity and specificity results were accidentally reversed, since the position of false-positive and false-negative results were mistakenly allocated in the 2 × 2 contingency table used for calculations.

The following is a corrected version of Figure 2:

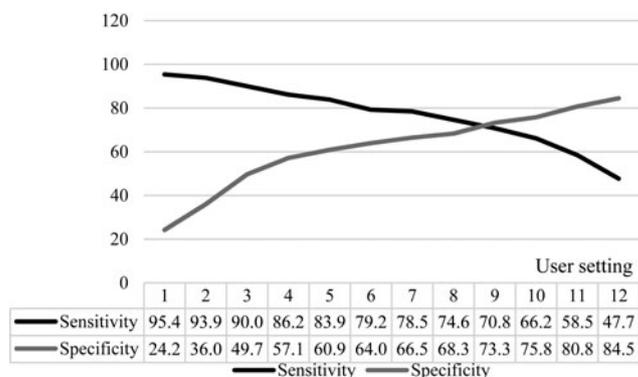


Fig. 2. Sensitivity and specificity evaluated at different threshold setting of QScout[®] MLD.

On page 316, in the ‘Discussion’, top of the right column:

‘Our reported *Se* of 65.4% and *Sp* of 79.3% were similar to those reported in prior studies. Pilla et al. (2013) reported *Se* of 73.3% and *Sp* of 73.6%. Adjustment of user settings from 1 to 12 would allow user optimization of settings. Sensitivities progressively increased from 50.4% at setting 1 to 71.3% at setting 12, while specificities decreased from 86.7% at setting 1 to 66.7% at setting 12 (Fig. 2).’

Should read:

Our reported *Se* of 78.5% and *Sp* of 66.5% were similar to those reported in prior studies. Pilla et al. (2013) reported *Se* of 73.3% and *Sp* of 73.6%. Adjustment of user settings from 1 to 12 would allow user optimization of settings. Sensitivities progressively decreased from 95.4% at setting 1 to 47.7% at setting 12, while specificities increased from 24.2% at setting 1 to 84.5% at setting 12 (Fig. 2).

Reference

Gonçalves JL, Lyman RL, Hockett M, Rodriguez R, dos Santos MV & Anderson KL 2017 Using milk leukocyte differentials for diagnosis of subclinical bovine mastitis. *Journal of Dairy Research* **84** 309–317. Published online 27 June 2017, doi:10.1017/S0022029917000267