

The Cough Index Calculator App: US Experience with the Tool in a Large Scale Field Trial



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INTRODUCTION

Coughing pigs are a common complaint that producers report and veterinarians make recommendations to address. The measurement of cough is subjective, e.g. "better or worse", or categorical, e.g. mild, moderate or severe, which makes the assessment of an intervention based on cough challenging. In 2016, a free, app-based tool was published by Boehringer Ingelheim Animal Health GmbH to make the measurement of cough more standardized and objective in a production setting. The tool is a Cough Index Calculator and results in a cough index score. A score of 2.5 or greater has been suggested to be indicative of a respiratory event.¹ Cough was measured using this tool within a large scale field trial conducted in the United States. Our experiences are reported here.

MATERIALS AND METHODS

Eleven flows were enrolled in the field trial with four groups of pigs selected per flow to routinely assess cough using the tool. Producers entered a farm/group name into the tool, decided on the number of pigs and pens to routinely assess, and followed the instructions in the tool to obtain a cough score. Scores were generated weekly from weaning to market.

RESULTS

Following an initial walk through of the tool, producers could easily navigate and obtain cough index scores for a group of pigs. Not only was it valuable to note when a group exceeded the threshold, indicating a respiratory event, but producers could also note the change in the numerical score over time and in many cases, track a resolution of cough in the group.

DISCUSSION AND CONCLUSION

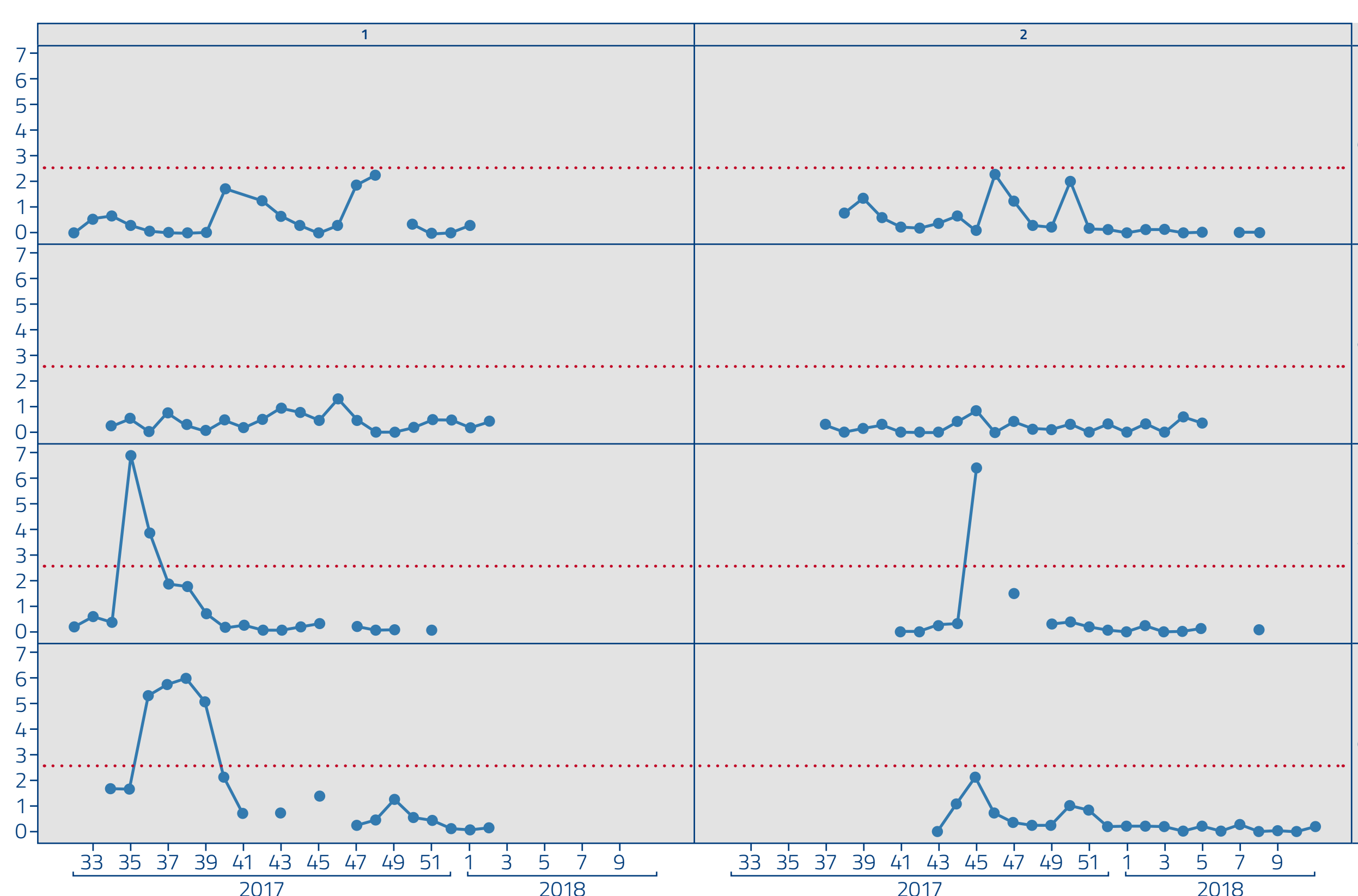
Producers can now easily obtain objective measurements of cough with this tool. The industry should continue to adopt technologies to assist in obtaining objective clinical information in order to better define a clinical case, assess the effectiveness of interventions and guide future intervention recommendations.

REFERENCES

1. Nathues et al. (2012). Value of the clinical examination in diagnosing enzootic pneumonia in fattening pigs. *The Veterinary Journal*, 193, 443-447.

Figures 1. Weekly cough index scores for 8 wean to market cohorts.

Two cohorts are represented (right panel and left panel) in each of four different flows of pigs (flow numbers 3, 6, 7 and 8 from top to bottom). The red dotted line indicates the suggested respiratory event threshold of a cough index score > 2.5.



Figures 2a and 2b: Weekly cough index scores (top panel) compared to biweekly oral fluid PCR test results for Influenza A virus (blue bars) and Porcine Reproductive and Respiratory Syndrome virus (Yellow bars).

Figure 2a. Results from cohort 2 in flow 8.

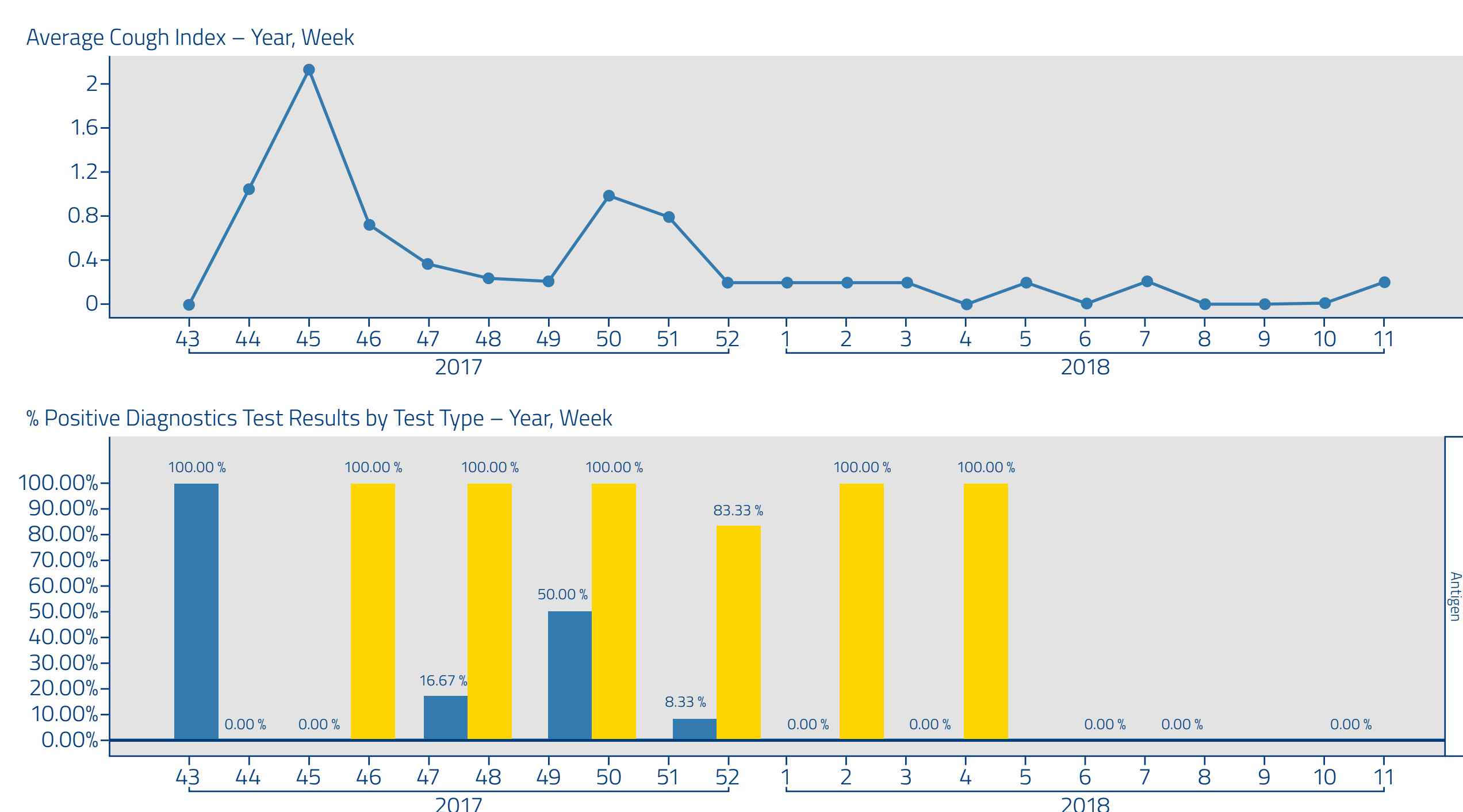


Figure 2b. Results from cohort 2 in flow 7.

