

# New technology for milking vacuum diagnostics helps veterinarians better understand udder health problems

**K Detrick; E.M. Postma, BSc**

*BioControl AS, Barchem, The Netherlands, 7244*

## Introduction

Udder health problems are often related to the milking equipment, many times in combination with inadequate milking routines. Notorious are teat-end vacuum fluctuations due to insufficient vacuum capacity, pathogens reaching the teat-end due to 'back-spray', and of course insufficient preparation before milking.

Most veterinarians are familiar with the Milking Time Test, or 'wet test'. In the wet test, the milking vacuum and pulsation are recorded during milking, which gives a good indication of how the milking equipment and milking routines perform in real life – when milking cows. Veterinarians understand the high value of this wet test because it helps them determine if an udder health problem is animal related or equipment related.

Despite this, many veterinarians are reluctant to do a wet test because of the perceived complexity and time it consumes. When normally performing a wet test, the veterinarian is wired to the milking point, meaning that the milking routines cannot be observed; moreover, the veterinarian's presence disturbs the milking routine. To get a good overview, data for quite a few cow milkings should be recorded, which implies that the veterinarian is trapped in the milking parlor and cannot spend his valuable time on anything else.

This poster is about experiences of European veterinarians and advisers with a new battery operated data logger that logs the vacuum autonomously at four points during milking. This data logger (*VaDia*) is small and light enough to be taped to a teat cup and makes wet testing much easier, faster, and hands- and eyes-free.

## Materials and Methods

The *VaDia* is connected to the Short Pulsation Tube, the Short Milk Tube and the front and rear Mouth Piece Chambers. The pulsation and milking vacuum data of many cow milkings are recorded and analyzed with vacuum diagnostics software.

The software divides each cow milking into phases and calculates a.o. cyclic vacuum fluctuations, irregular vacuum fluctuations, vacuum during peak flow, total milking time, peak flow period, and over-milking time.

## Results

The data are presented in overview reports that list individual and average values so that conclusions can be made.

The calculation methods and algorithms used result in a 'snap-shot' summary of the current milking situation, enabling the veterinarian to present an overview that can be a starting point for discussion with the farmer.

## Significance

This new technology helps the veterinarian to easier log, analyze, and understand the milking equipment and milking routines as possible causes of udder health problems on a farm.