

QuarterPRO FAQs

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WHAT ARE the CDL file and the .csv file used in QuarterPRO?

The CDL file contains all the information available from a milk recording organisation, in a standard format (“common data layer”). This contains the “herd structure” information including cow ID’s, calving dates, parity etc as well as individual cow cell counts and milk composition data, if recorded. It MAY include clinical mastitis data, but not necessarily.

The .csv file used in QuarterPRO, generated by the “cdl converter” tool **from** a CDL file, is the subset of information needed by the Mastitis Pattern Analysis Tool to generate the herd Mastitis Pattern. It is laid out in a specific format and as comma separated values (hence the file extension .csv)

HOW do I obtain a CDL file for a herd?

This is obtained from the milk recording organisation (NMR, CIS or QMMS) - with permission from the farmer if being given to a third party. Contact the respective milk recording organisation to request the CDL file.



WHAT IF the Mastitis Pattern Analysis Tool generates a “mixed pattern”?
e.g. “Predominant current issues are EL and EDP”

Choose one area to concentrate on **first**.

Think about -

- Where the most immediate gains can be made
- Time of year - is there seasonality in either the dry cow problems or the lactation problems?
- Seasonality of calving - will changes to the dry cow environment at present be effective?
- Nature of the problem - is this a cell count issue or a clinical mastitis issue? Which group is likely to influence the main problem most? (may require more detailed data analysis)
- Dry cow interventions often yield the most immediate returns, if it is the appropriate time of year to make them.
- Contagious issues might seem easy to tackle, but may require a complete change of mindset in the parlour.

CAN the Mastitis Pattern Analysis Tool work using only clinical mastitis data (without individual cow SCC data)?

IF the clinical mastitis data can be linked to the “herd structure” data (cow numbers, calving dates, etc) provided in CDL format, the tool will provide some parameters and generate a pattern in the absence of SCC data. This would work for herds that record yield and composition, (but not individual cow somatic cell counts) WITH A MILK RECORDING ORGANISATION.

IF the herd records individual cow somatic cell counts, but does not report individual yields to the milk recording organisation, the Pattern Tool will give a warning “Bulk Milk SCC Value(s) required”.

WHAT IF the farm has infrequent individual cow SCC records?

If there are less than two recordings in a 3-month period, the data quality screen of the Pattern Tool will give a red warning and the pattern analysis will be less robust.

If the herd calves seasonally and individual cow recordings are only made to inform drying off, the Pattern Tool cannot work properly.

Be cautious when interpreting apparent ‘Contagious’ patterns in herds with irregular milk recording data.

WHAT IF the farm has no clinical mastitis records at all?

Farmers should be reminded that they have a legal obligation to record mastitis treatments. A spreadsheet of clinical cases can often be created from treatment records.

If the farmer is not recording any case information, interpret the output with caution, particularly in low cell count herds. Try to understand any pitfalls resulting from data quality. Seek experienced advice to make manual analysis of the data that is available.

Instigate recording of clinical cases, at least on paper: cow, date and days in milk.

Rule of thumb to start off with:

As a start, follow the next 12 cows to calve. If more than one of them has a case of clinical mastitis in the first 30 days of lactation, there is likely to be an issue with the dry period.

WHAT IF the farm only has clinical mastitis records on paper? (but has electronic milk recording information)

Collate the clinical data for the last 18 months in Excel using the template at <https://ahdb.org.uk/mastitis-pattern-analysis-tool>, save as csv file and merge with the CDL using the converter tool or merge with other farm software using TotalVet.

Figure 1 Screenshot of the link to the clinical mastitis data template at <https://ahdb.org.uk/mastitis-pattern-analysis-tool>

If clinical mastitis cases are not recorded in the CDL they can be merged in from a CSV file using the converter.

The data must be laid out exactly as in the example file [MastitisExample.csv](#). The first two columns (date and cow line number) are necessary, the rest are optional. Download the template file [Mastitis.csv](#). Make a copy of this file containing your own data and use to merge in when prompted by the converter. The file can be opened in Excel, data typed in, then save it again in CSV format. Make sure the file name still begins with "mastitis". e.g. mastitis_ManorFarm.csv NOT ManorFarm_mastitis.csv

For assistance contact dmcp@qmms.co.uk



WHAT IF the farm has clinical mastitis data in farm software but not in the milk recording CDL?

If you have TotalVet, you can create the .csv file required from most farm software in TotalVet using:

View Advanced Reports
Mastitis

Mastitis Rates - csv export

(ensure that the latest milk recording information has been imported into TotalVet first)

OR IF YOU DO NOT HAVE TotalVet

Contact the manufacturer of your on-farm software to find out how to export mastitis data in the format indicated by the template at <https://ahdb.org.uk/mastitis-pattern-analysis-tool>.

WHAT IF the farm uses robots that record cell count?

It is not possible to extract “Cell Count” data from robotic milking systems for use in the pattern tool. A CDL from a milk recording organisation is required. Robot “Cell Count” data is not accurate enough for predicting new infections around the 200,000 cells/ml threshold.

WHAT IF my initial judgement disagrees with the Pattern Analysis Tool?

Validation of the Pattern Analysis Tool during its development demonstrated that the Tool reached the same conclusion as a Veterinary Expert for 90% of herds (i.e. achieved 90% accuracy overall). Disagreement was most often associated with poor data quality or a “mixed pattern”.

If you disagree with the diagnosis made by the pattern tool, more detailed analysis of the farm data may be necessary.

WHAT IF a more detailed investigation is required to pinpoint relevant interventions?

Find a trained Plan Deliverer to carry out the full Mastitis Control Plan
<https://www.mastitiscontrolplan.co.uk/>

WHAT IF no progress is being made after several runs of QuarterPRO?

Find a trained Plan Deliverer to carry out the full Mastitis Control Plan
<https://www.mastitiscontrolplan.co.uk/>



REMIND ME of the sequence of steps through the QuarterPRO process

SUMMARY - What are we trying to do?

- Work out **when** infections are predominantly happening
 - Dry period or Lactation
- Work out **where** infection are predominantly coming from
 - Cow-to-cow or Environment
- Identify the key risk factors
- Work out what can be done to reduce these risks
- Make changes...
- Review every 3 months
- Signpost to full Mastitis Control Plan when more detail is needed

REMIND ME of the sequence of steps through the data analysis process

SUMMARY – How do we do it?

- Obtain a CDL (Common Data Layer) file from NMR, CIS or QMMS (contains herd structure and milk recording data)
- Use the CDL to MCP converter to extract the relevant information from the CDL file, merging in clinical data if necessary and saving it as a .csv file 
- Read the .csv file into the Mastitis Pattern Analysis Tool 
- Generate the Pattern Analysis Report to identify the predominant Pattern 
- Refer to the relevant fact sheets for suggestions on management changes
- Decide on changes with the farm team
- Make changes...
- Review every 3 months
- Signpost to full Mastitis Control Plan when more detail is needed

<https://ahdb.org.uk/quarterpro>

<https://www.mastitiscontrolplan.co.uk/>