Selective dry cow treatment on quarter level with responsible consumption of antibiotics

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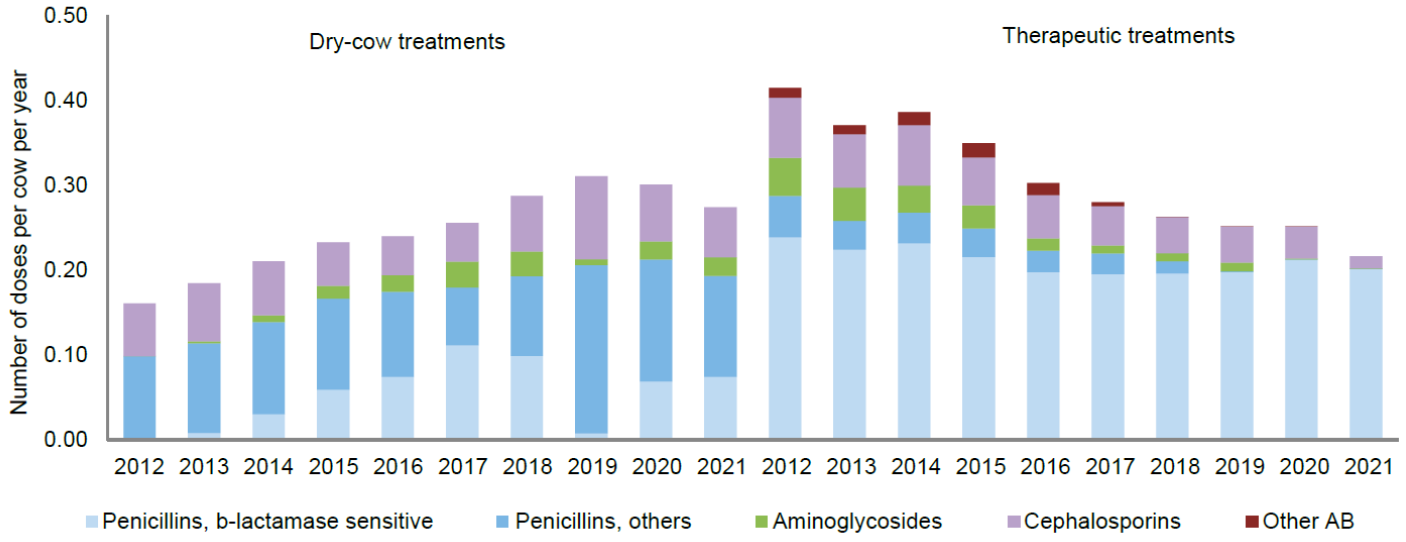
UNIVERSITY OF COPENHAGEN

STØTTET AF
Mælkeafgiftsfonden

Goal

Figure 4.8 Use of antimicrobial agents for intramammary application in cattle, DAPD, Denmark DANMAP 2021



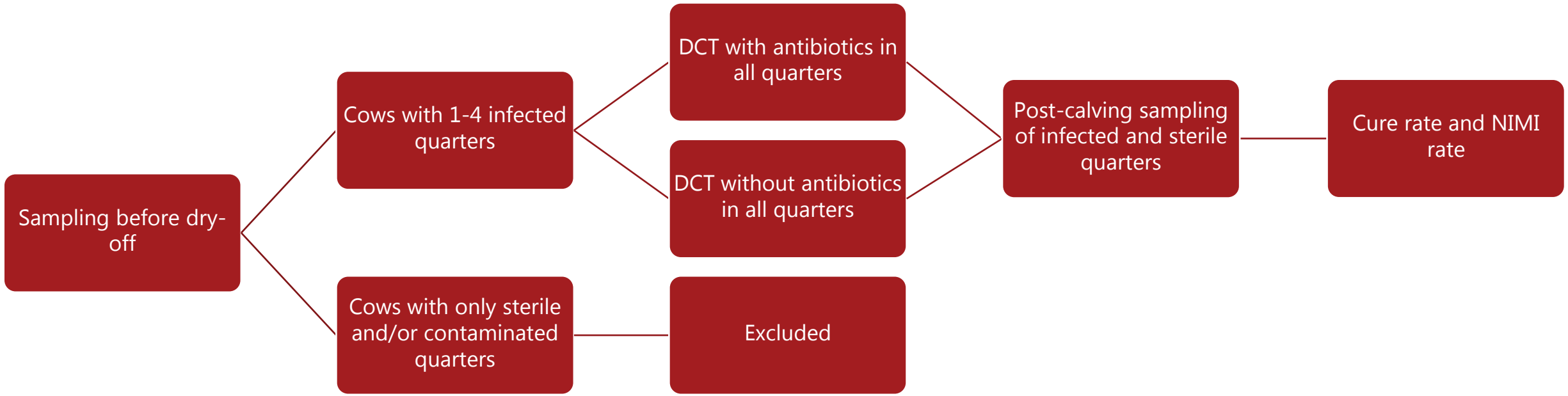
- Reduce antibiotic use at dry off – without decreasing udder health
- 485 kg antimicrobials used for IM treatment of mastitis or DCT (DANMAP 2021)

What do we want to investigate?

- Should cows with a SCC of 100,000 – 200,000 cells/mL be treated with antibiotics at dry off?
  - Should specific bacteria be treated or not?
  - Bacteriological cure-rate vs self-cure
- Can Quarter-based DCT maintain the same udder health in Danish Dairy cows as Cow-based DCT?
  - Bacteriological cure-rate
    - NIMI, clinical mastitis

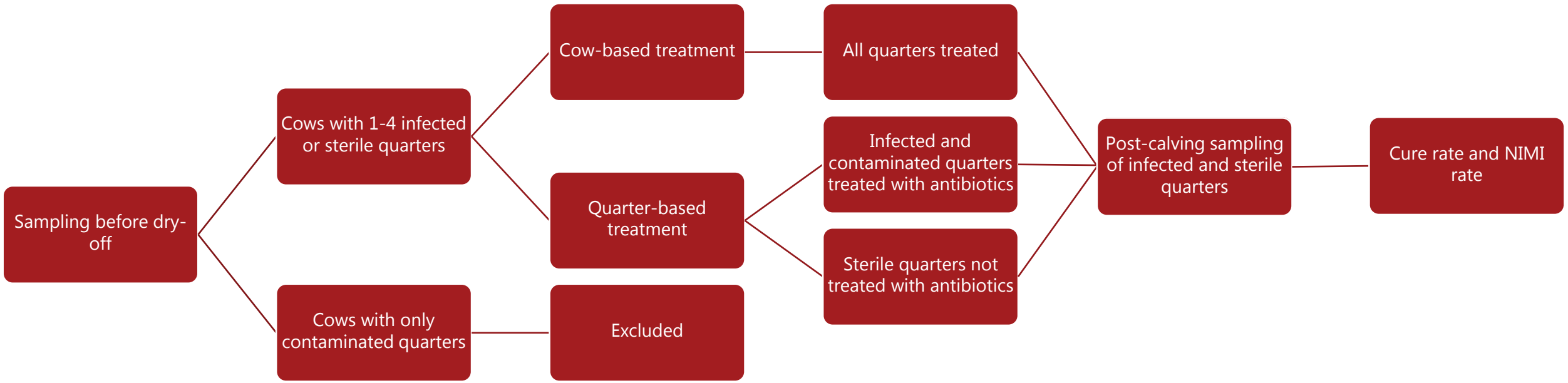
Trial 1: Cure rates in dry period with or without antibiotic DCT

- SCC of 100,000 – 200,000 cells/mL



Trial 2: Cure rates in dry period with selective Cow- or Quarter-based DCT

- SCC of > 200,000 cells/mL



Sample size

- 250 cows for each trial
  - 4 samples per cow
    - Before dry off
    - Post-calving
- 4000 samples in total

Results – so far

Trial 1

	No antibiotics	Antibiotics	Total
Number of cows	9	7	16
Number of cows dried off	2	2	4

Trial 2

	Cow-based	Quarter-based
Number of cows	5	9
Number of quarters	20	36
Number of quarters for treatment	20	17
Percentage of quarters for treatment	100%	47.2%
Cows dried off	1	0

Thank you for listening

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- Others involved in the project is:
  - Volker Krömker and Carsten Kirkeby, University of Copenhagen
  - Michael Farre and Lærke Astrup, SEGES