

Prudent use of Antibiotics

Mastitis and treatment

Kvægkongres, Herning,

3.Maj 2022

35 landmænd, dyrlæger mm.



Line Svennesen

Veterinarian and Researcher (post doc)

University of Copenhagen

KØBENHAVNS UNIVERSITET



STØTTET AF

Mælkeafgiftsfonden

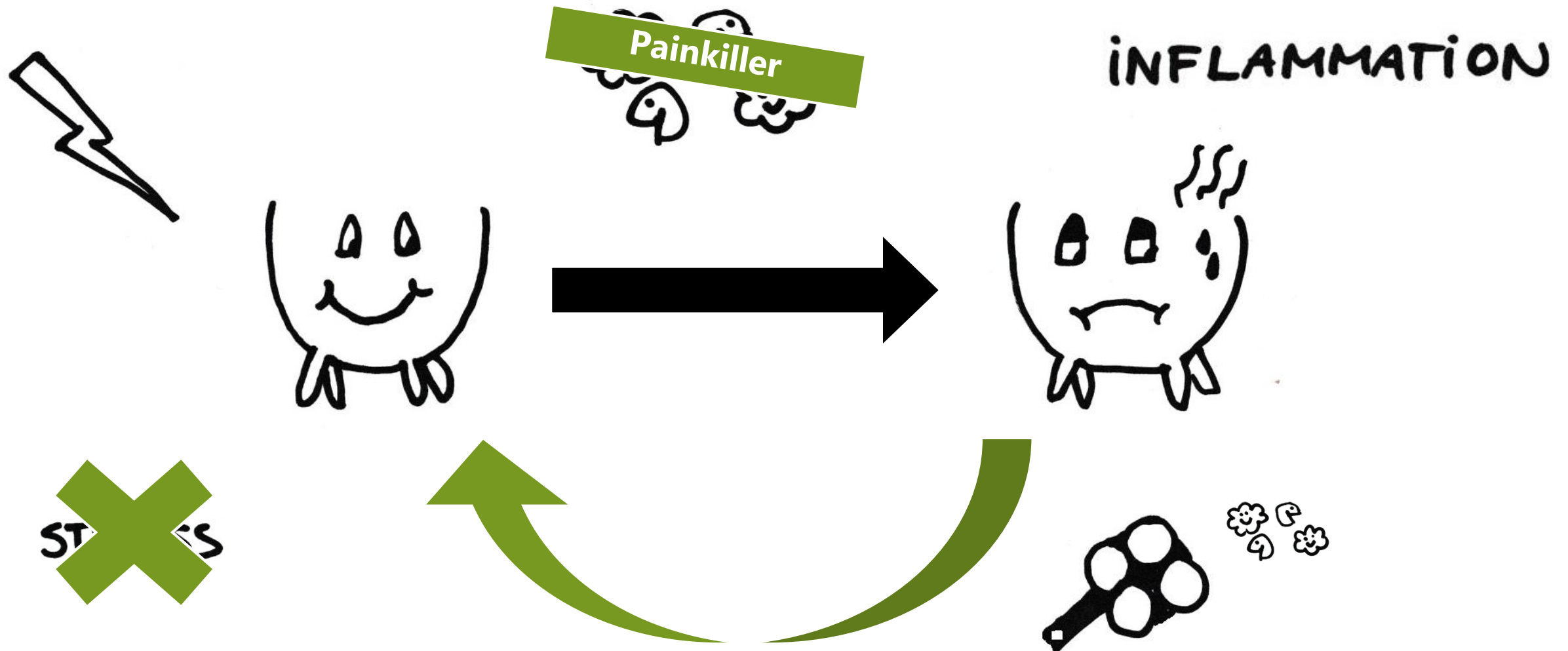
Prudent use of antibiotics for mastitis

Antibiotic consumption for cattle:

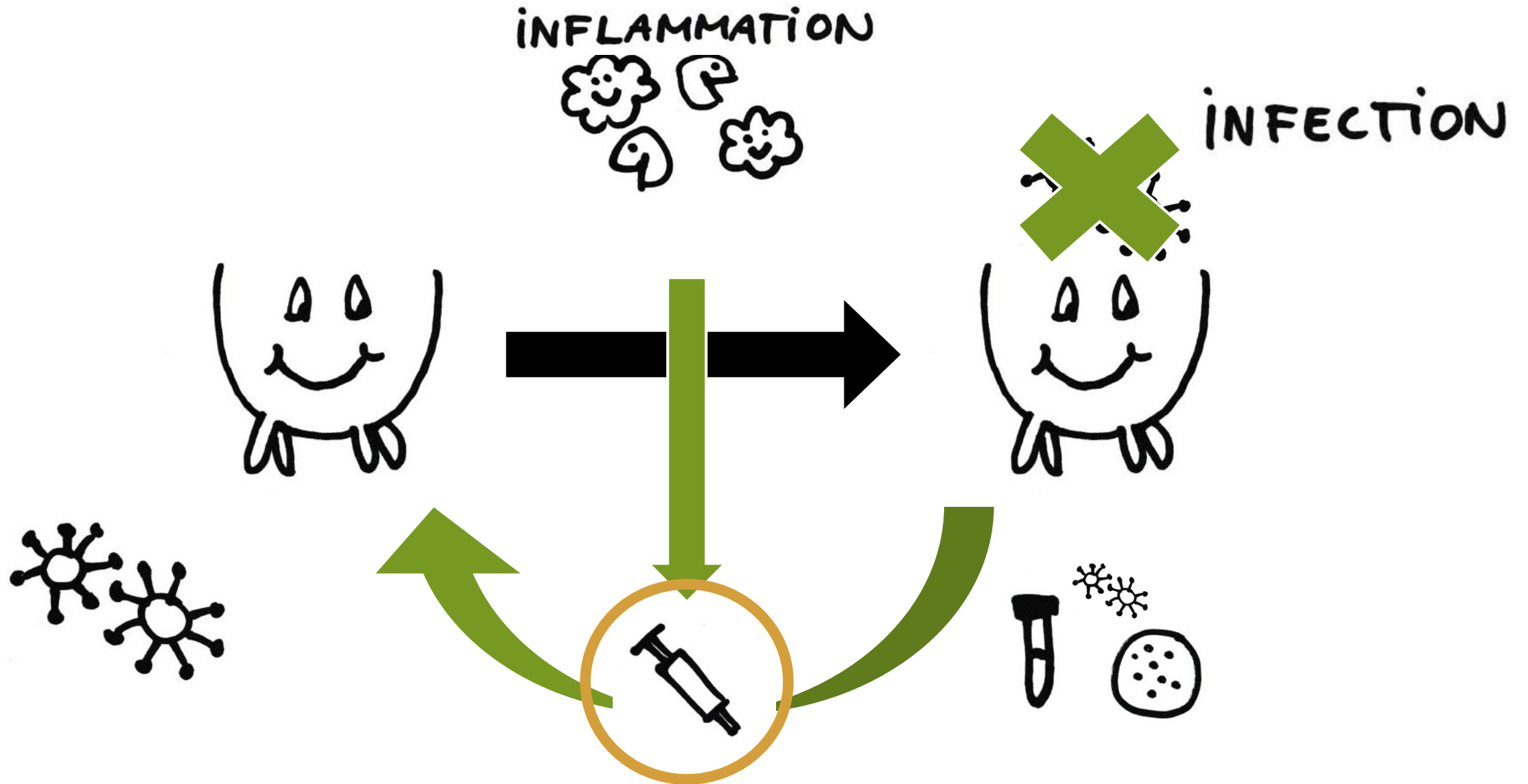
- 70% for adult cattle
- Mainly for mastitis
- Administered in the muscle



What is mastitis?



Mastitis is often caused by infection with bacteria



How to reduce the use of antibiotics in mastitis treatment

- Reduce NUMBER of TREATMENTS
- Reduce AMOUNT per TREATMENT
- Reduce NUMBER of INFECTIONS

How to reduce the use of antibiotics in mastitis treatment

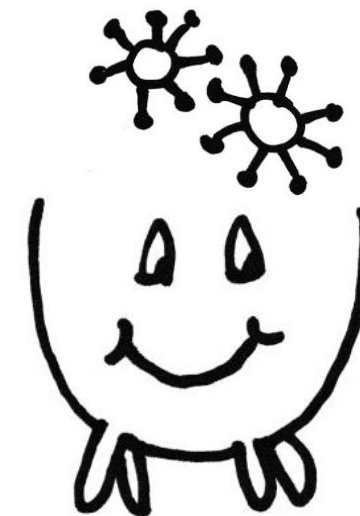
- **Reduce NUMBER of TREATMENTS**
- Reduce AMOUNT per TREATMENT
- Reduce NUMBER of INFECTIONS

Reduce NUMBER of treatments on farm

- Antibiotics only for infection with bacteria!
- Only 50% of the cows treated are cured because of the treatment.
- Select cases that cures because of treatment...







**Plan/flow
for selection**

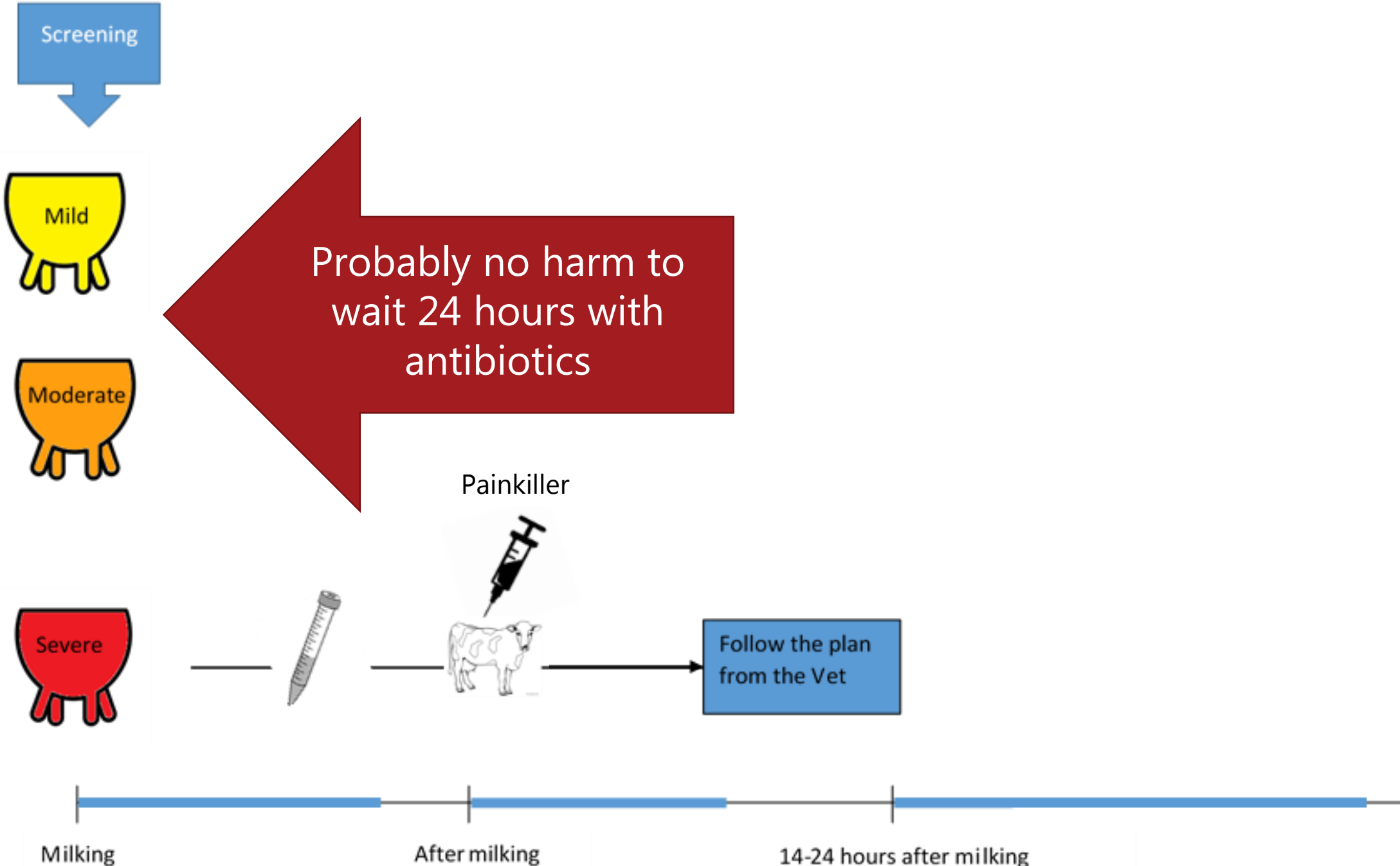
INFECTION





Milking

		Abnormal milk	Abnormal udder	Sick cow
Grade		 Clots, flakes, watery, discoloration	 Swollen, red, warm, hard, painful	 Fever > 39,5°C, depressed, yield loss, no appetite
1	 Mild	✓		
2	 Moderate	✓	✓	
3	 Severe	✓	✓	✓



Screening



Probably no harm to wait 24 hours with antibiotics

Painkiller



Follow the plan from the Vet

Milking

After milking

14-24 hours after milking

Screening

Milk sample

Painkiller/
NSAID

Diagnostics



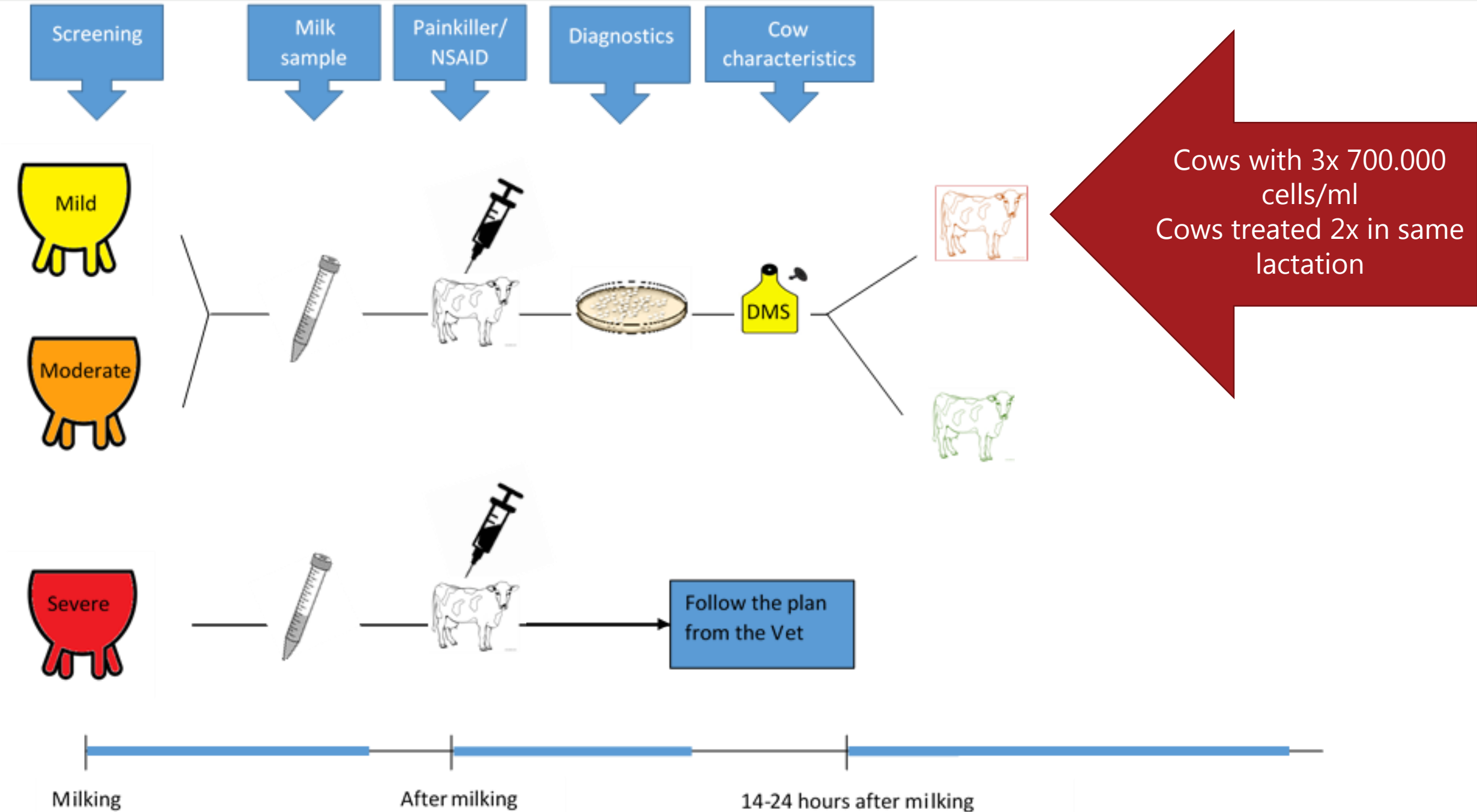
Follow the plan
from the Vet

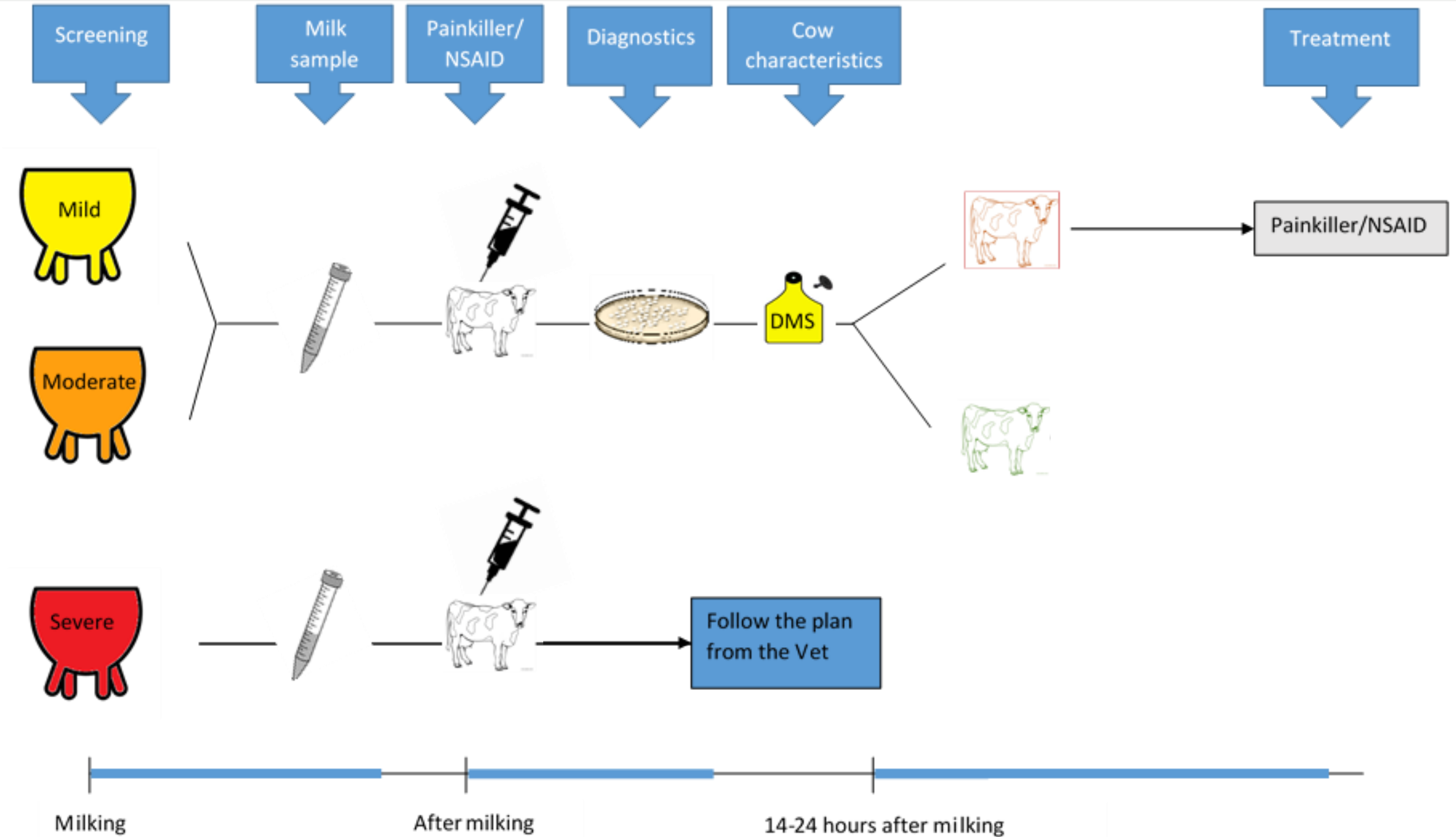
Only treat if there are
bacteria!

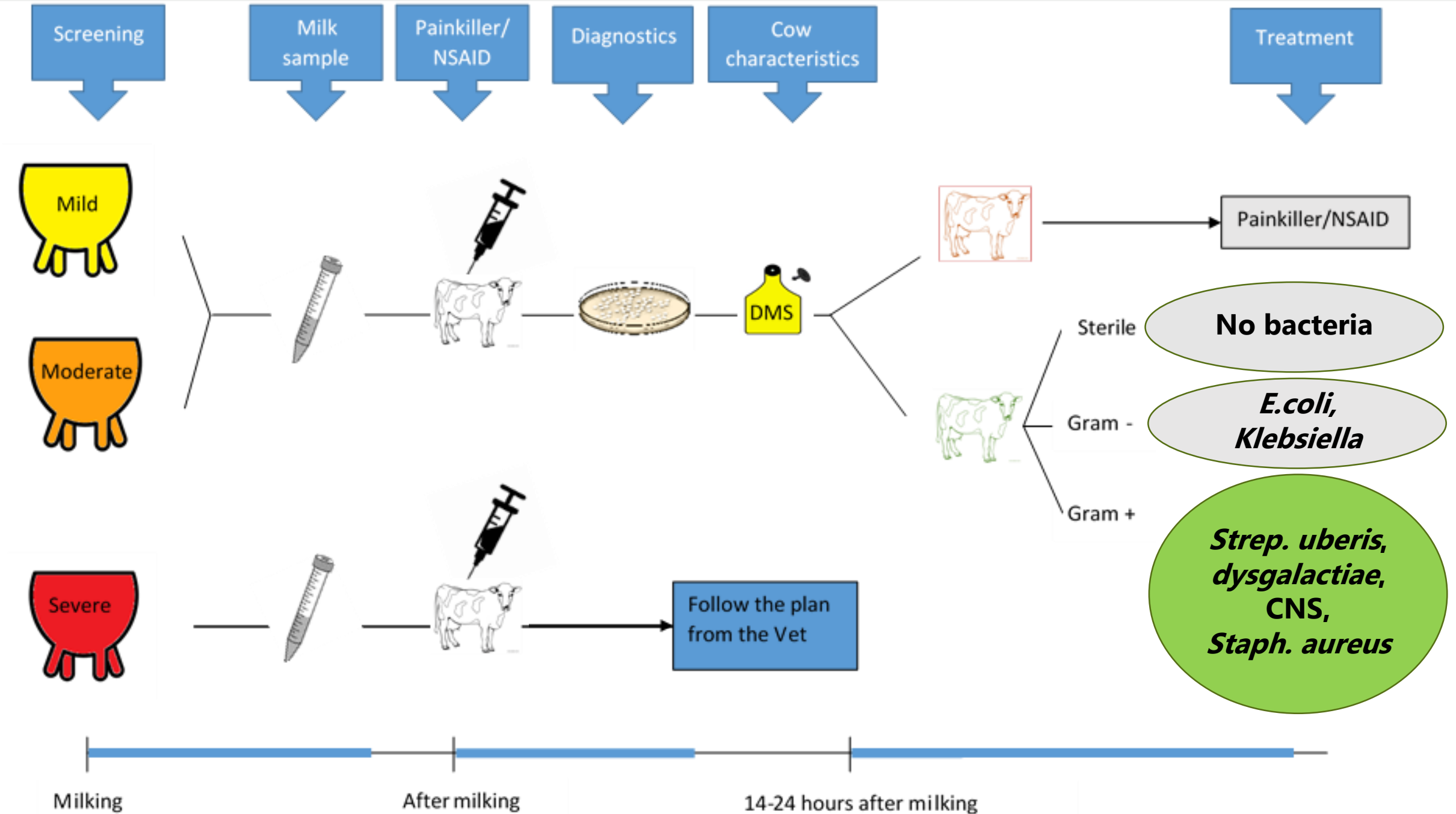
Milking

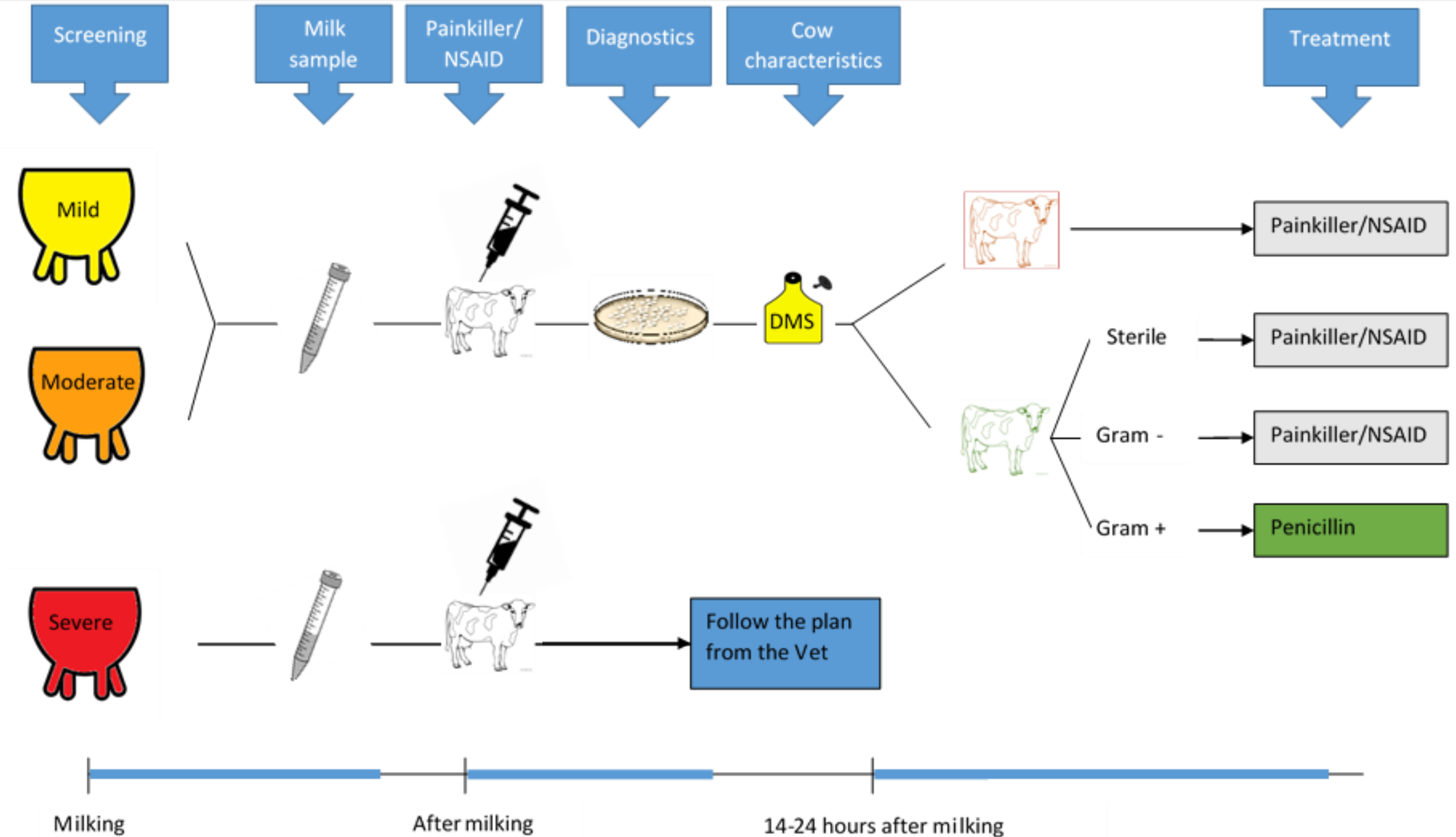
After milking

14-24 hours after milking









How to reduce the use of antibiotics in mastitis treatment

- Reduce NUMBER of TREATMENTS
- **Reduce AMOUNT per TREATMENT**
- Reduce NUMBER of INFECTIONS

Reduce AMOUNT of antibiotics per TREATMENT

We use mainly tubes AND injection – BUT tubes are enough in most cases!

Less penicillin in tubes

Staph. aureus
CNS

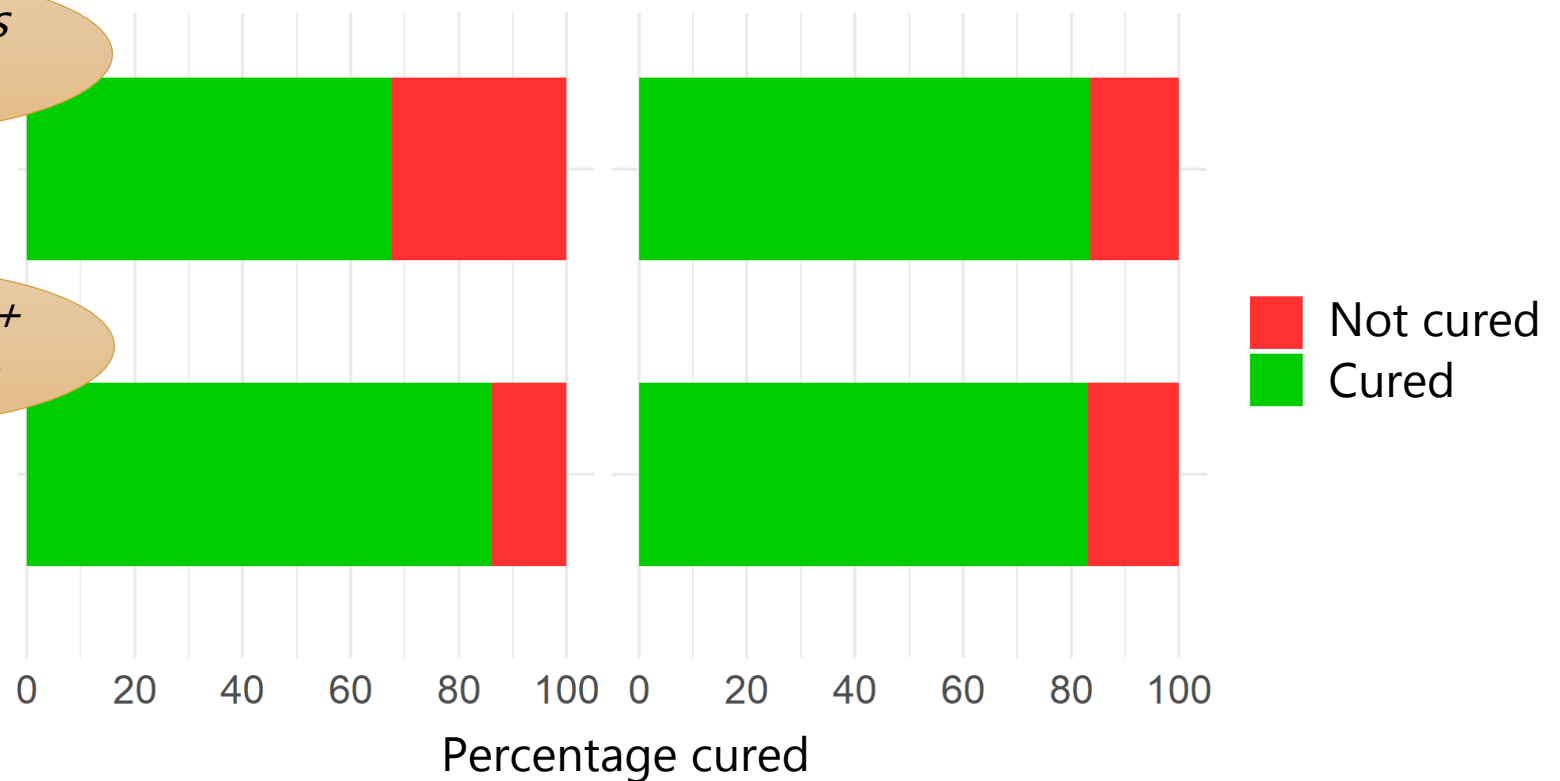
Staphylococci

Strep. uberis + dysgalactiae

Streptococci

Teat 3 days

Teat and muscle 3 days



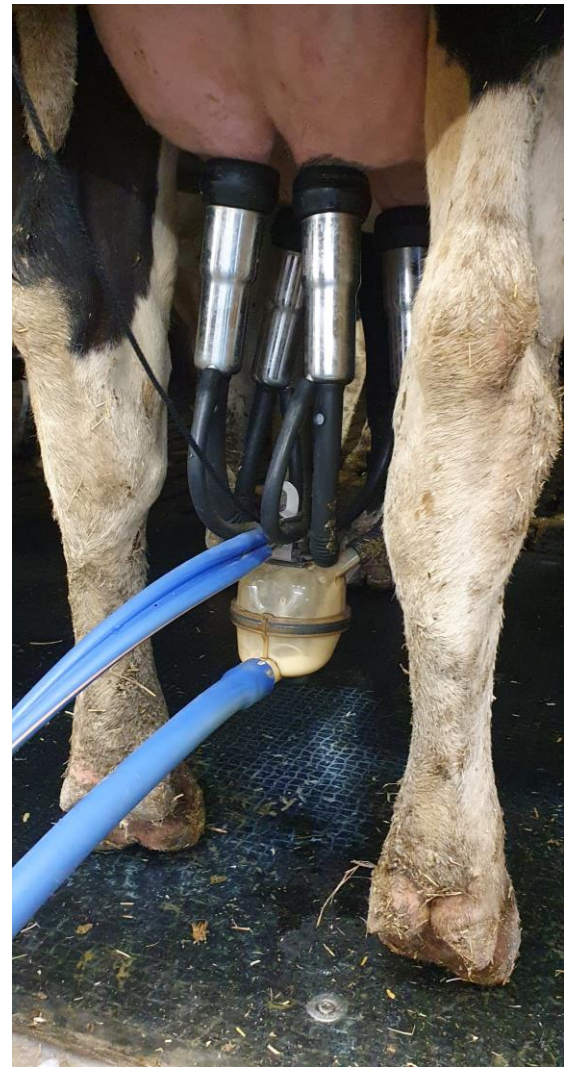
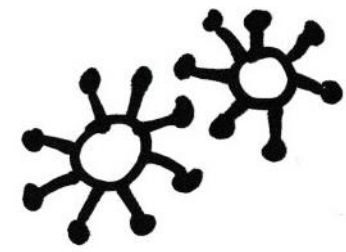
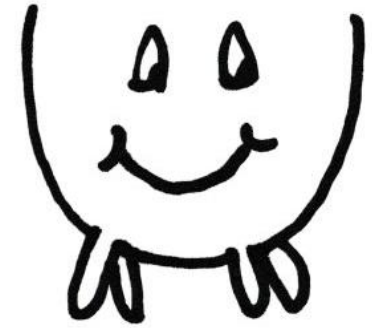
Depends on bacteria in the farm

How to reduce the use of antibiotics in mastitis treatment

- Reduce NUMBER of TREATMENTS
- Reduce AMOUNT per TREATMENT
- **Reduce NUMBER of INFECTIONS**

Reduce NUMBER of INFECTIONS

- Hygiene
- Stop spreading bacteria



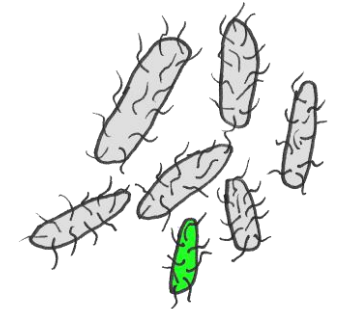
Prudent use of antibiotics in treatment of calves and mastitis

... as **little** as possible

... as **much** as needed



- Healthy animals
 - Less disease – less need for antibiotic treatment
- Reduce number of treatments
 - Sick animals should be treated
 - Supportive treatment (painkiller, fluid...) is as important as antibiotics
 - Treat with antibiotics only if bacteria → **antibiotics kill bacteria**
- Prevent antimicrobial resistance
 - Resistance makes it more difficult to treat the next case
 - Don't feed antibiotic milk for calves or humans
 - Treat local and with penicillin if possible





Questions?