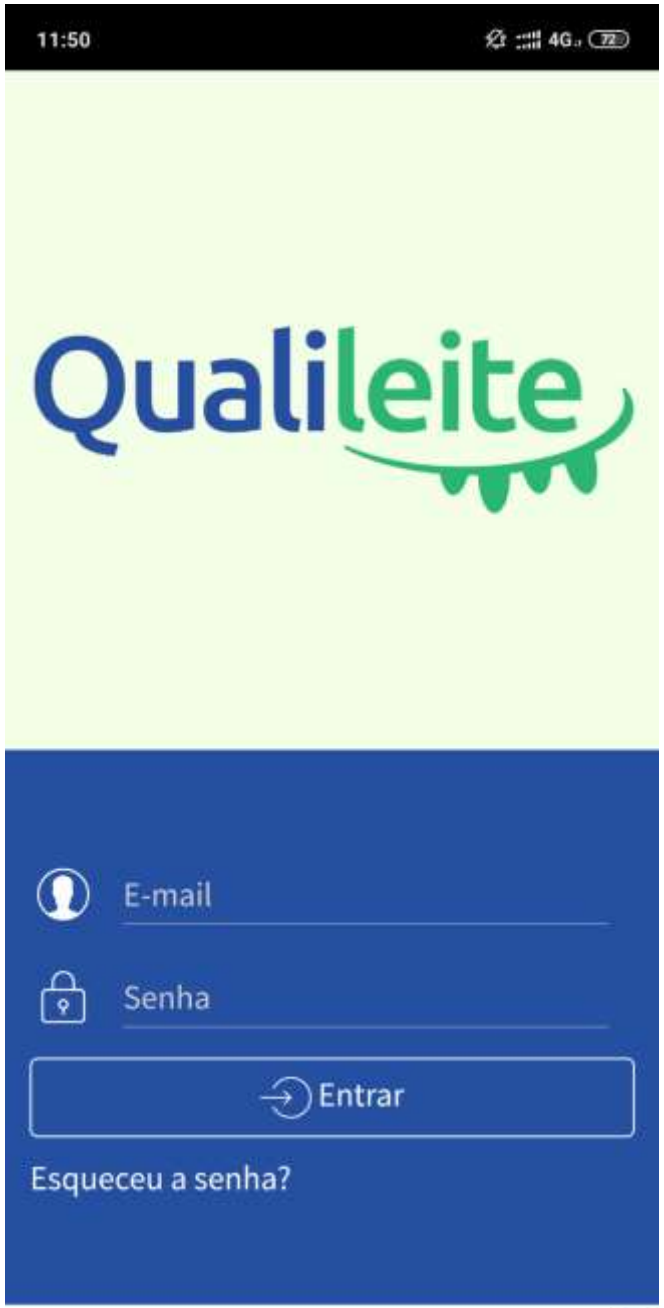
Uso racional de antibióticos

status atual, tendências e soluções

Qualileite | Marcos Veiga

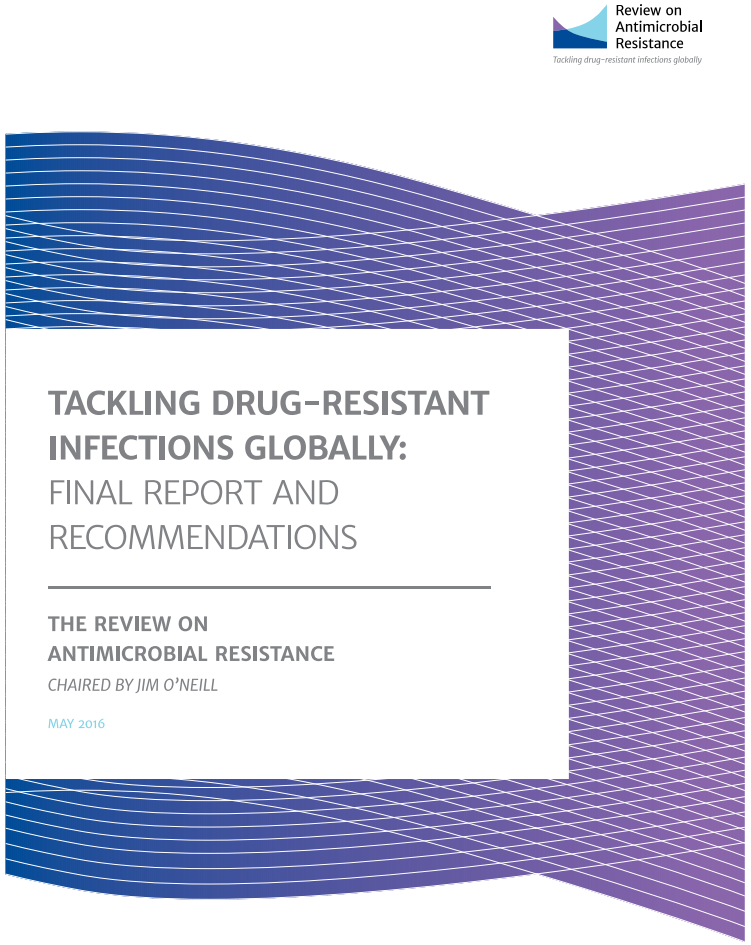


www.qualileite.org

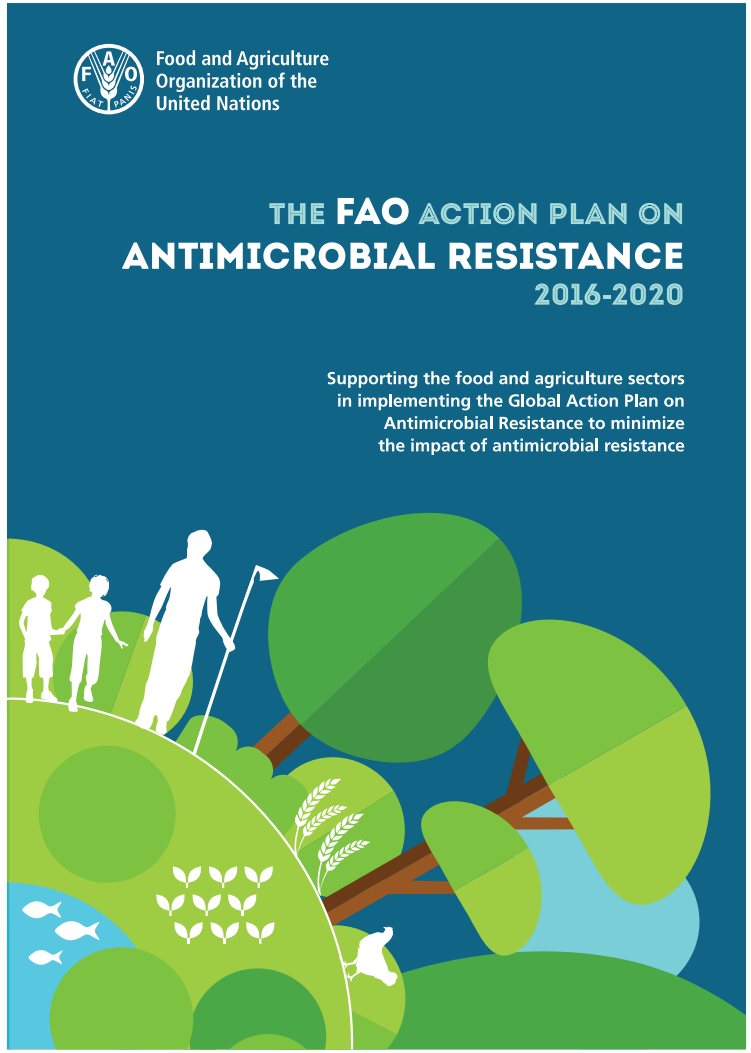
Qualileite

Uso de racional antibióticos

2015

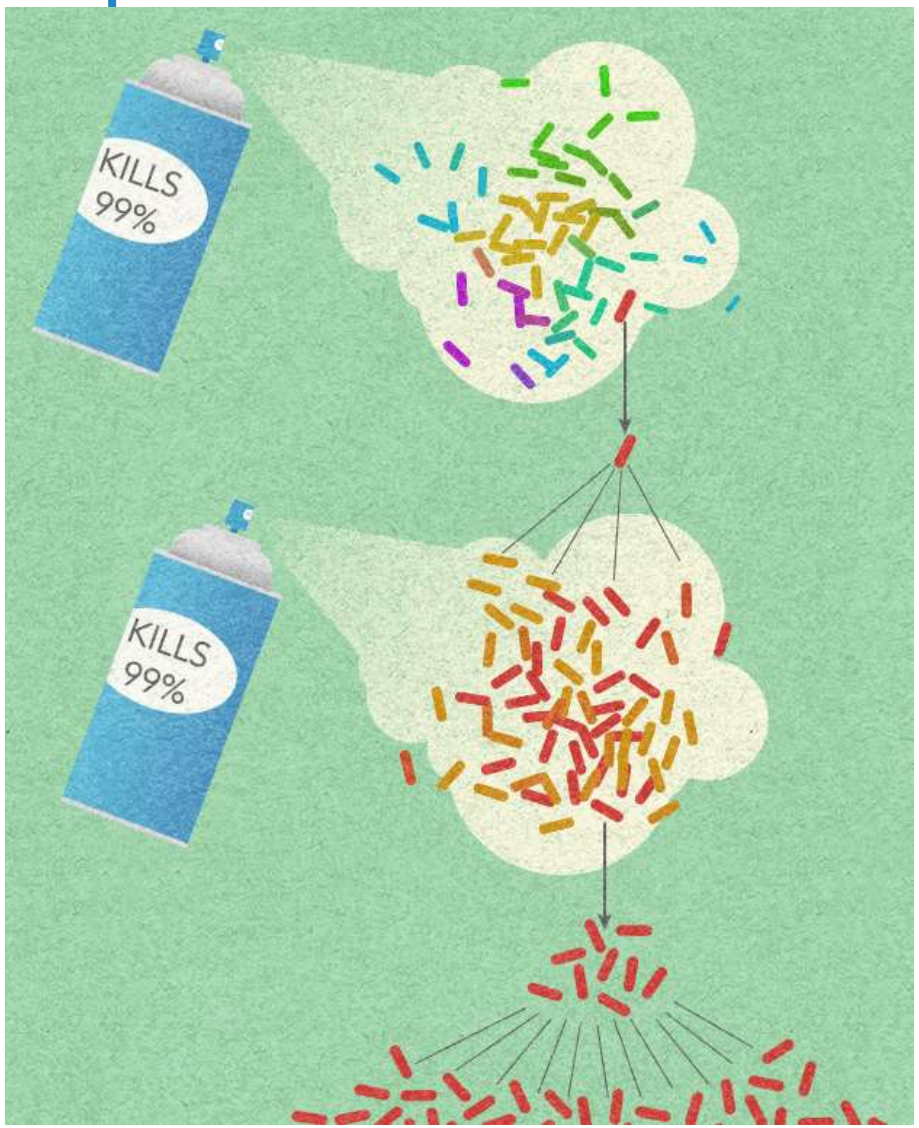


2016



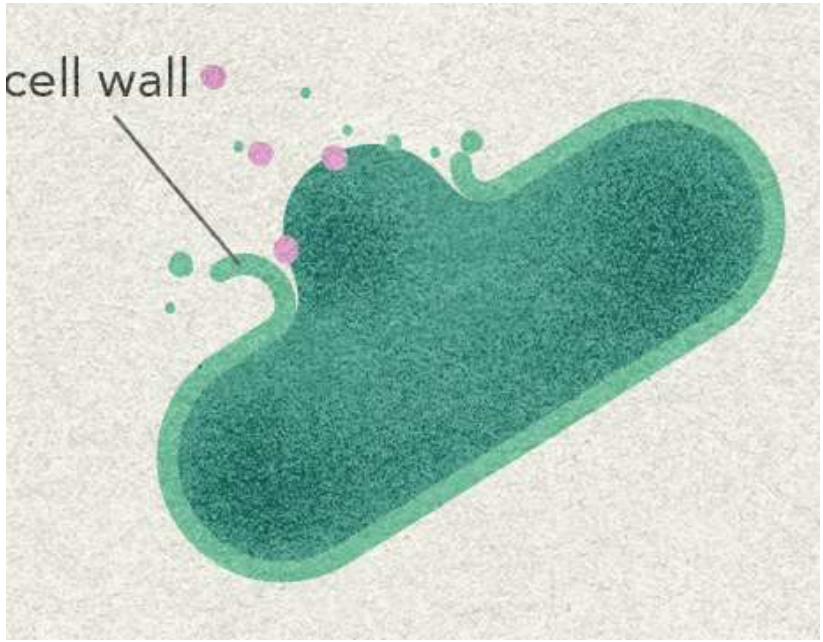
2016

Resistência aos antimicrobianos: Penicilina (1940)

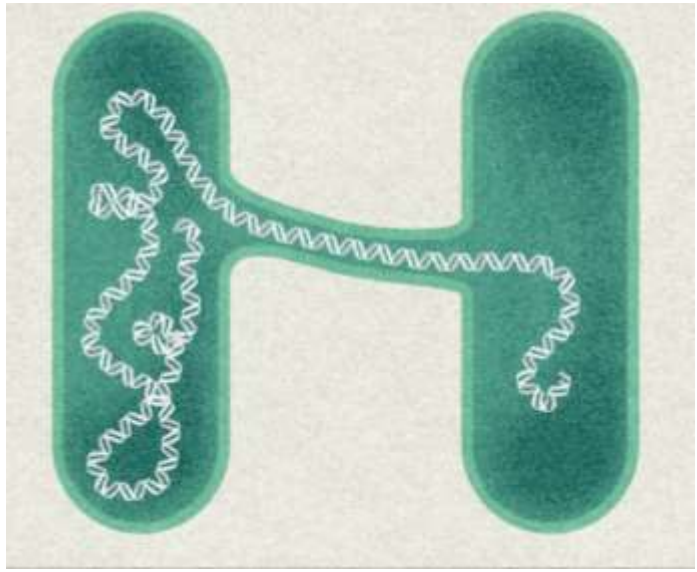


https://learn.genetics.utah.edu/content/microbiome/resistance/

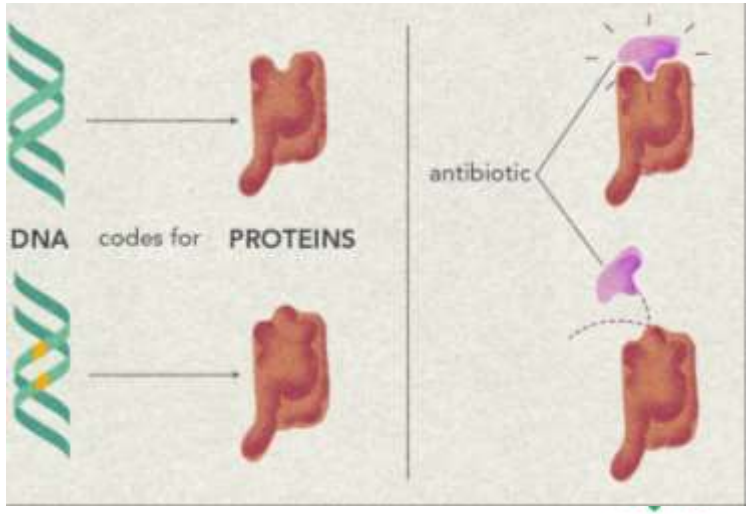
1 Intrínseca



2 Transferência de genes



3 Mutações



Qual importância e custo?

2050: US$ 100 trillion (2 - 3,5% do PIB global)

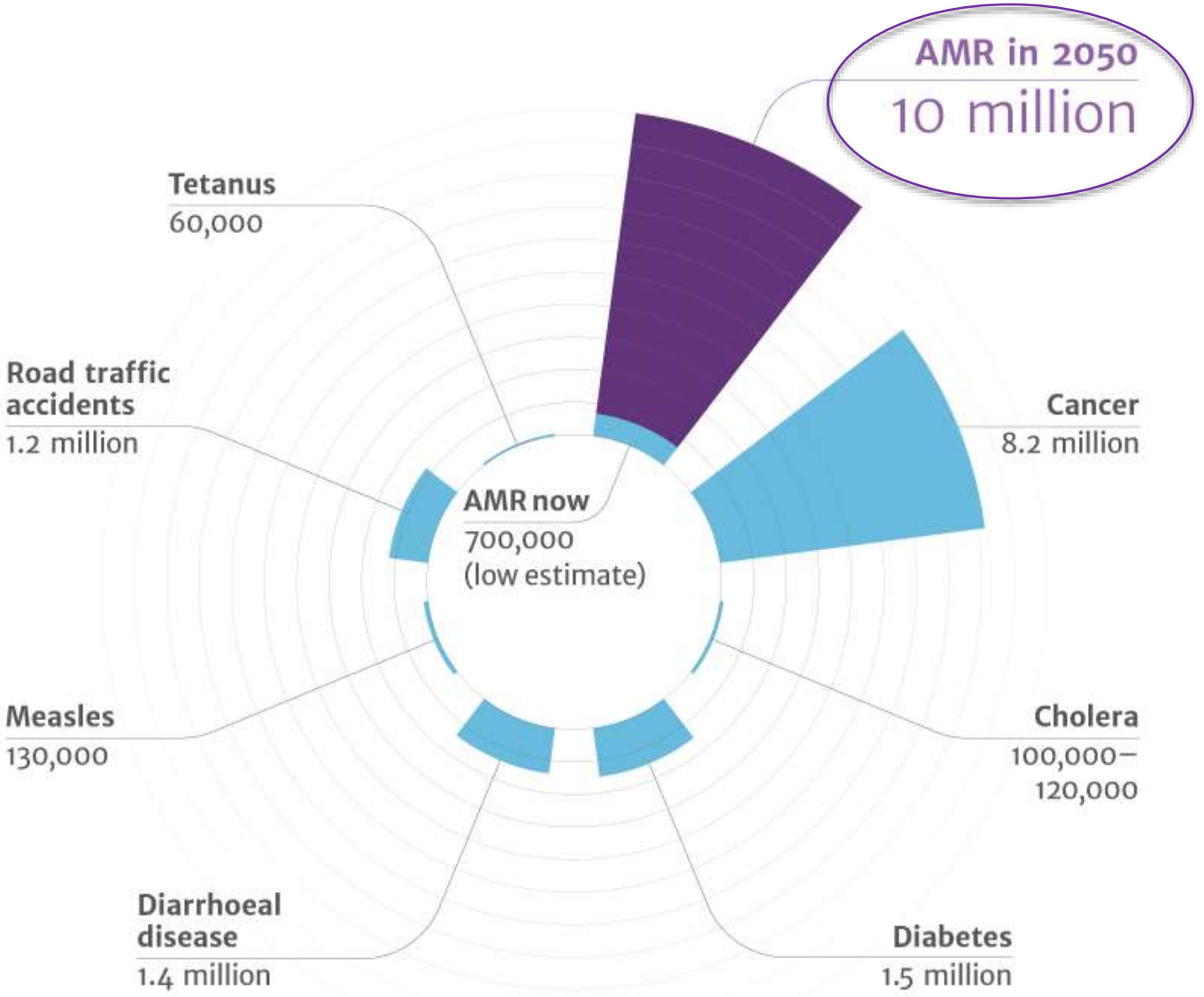
Review on Antimicrobial Resistance
Tackling drug-resistant infections globally

TACKLING DRUG-RESISTANT INFECTIONS GLOBALLY:
FINAL REPORT AND RECOMMENDATIONS

THE REVIEW ON ANTIMICROBIAL RESISTANCE
CHAIRED BY JIM O'NEILL

MAY 2016

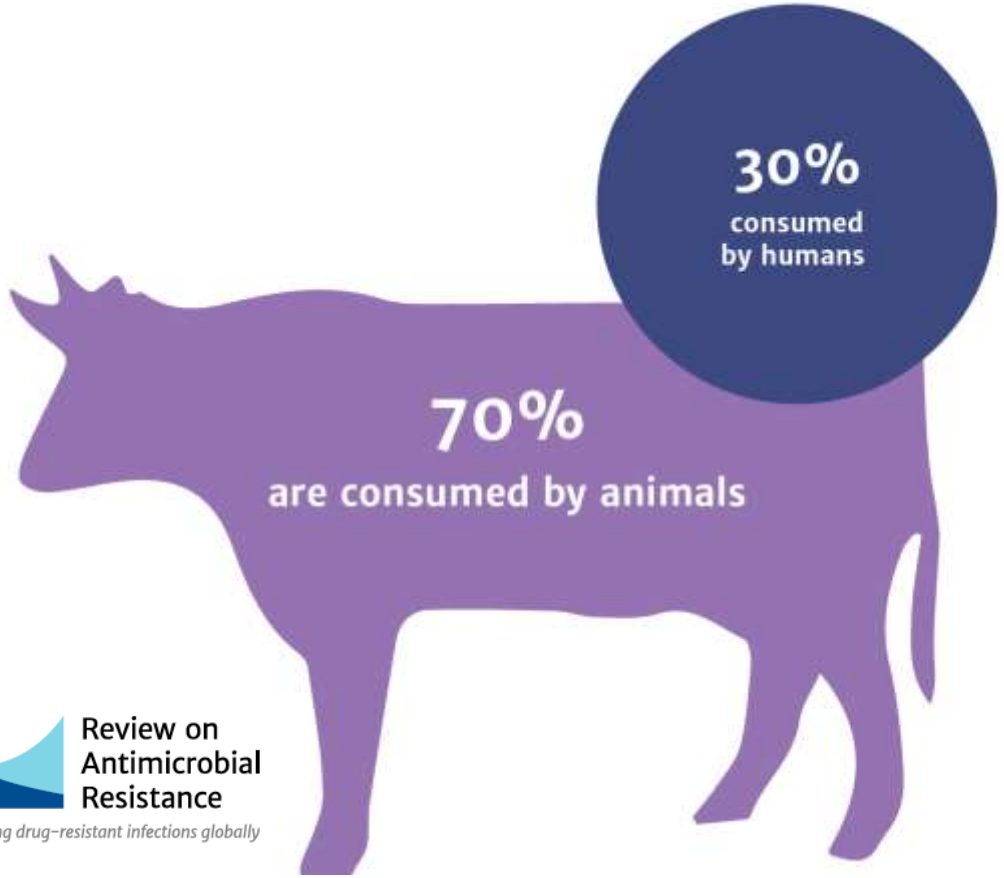
2016



Qualileite

https://www.canada.ca/en/health-canada/services/publications/drugs-health-products/tackling-antimicrobial-resistance-use-pan-canadian-framework-action.html

Animais nos EUA consomem o dobro de antibióticos de importância médica do que humanos.



Review on Antimicrobial Resistance

Tackling drug-resistant infections globally

Restricting the use of antibiotics in food-producing animals and its associations with antibiotic resistance in food-producing animals and human beings: a systematic review and meta-analysis

Karen L Tang, Niamh P Caffrey, Diego B Nóbrega, Susan C Cork, Paul E Ronksley, Herman W Barkema, Alicia J Polachek, Heather Ganshorn, Nishan Sharma, James D Kellner, William A Ghali

Summary

Background Antibiotic use in human medicine, veterinary medicine, and agriculture has been linked to the rise of antibiotic resistance globally. We did a systematic review and meta-analysis to summarise the effect that interventions to reduce antibiotic use in food-producing animals have on the presence of antibiotic-resistant bacteria in animals and in humans.

Methods On July 14, 2016, we searched electronic databases (Agricola, AGRIS, BIOSIS Previews, CAB Abstracts, MEDLINE, Embase, Global Index Medicus, ProQuest Dissertations, Science Citation Index) and the grey literature. The search was updated on Jan 27, 2017. Inclusion criteria were original studies that reported on interventions to reduce antibiotic use in food-producing animals and compared presence of antibiotic-resistant bacteria between intervention and comparator groups in animals or in human beings. We extracted data from included studies and did meta-analyses using random effects models. The main outcome assessed was the risk difference in the proportion of antibiotic-resistant bacteria.

Findings A total of 181 studies met inclusion criteria. Of these, 179 (99%) described antibiotic resistance outcomes in animals, and 81 (45%) of these studies were included in the meta-analysis. 21 studies described antibiotic resistance outcomes in humans, and 13 (62%) of these studies were included in the meta-analysis. The pooled absolute risk reduction of the prevalence of antibiotic resistance in animals with interventions that restricted antibiotic use commonly ranged between 10 and 15% (total range 0–39), depending on the antibiotic class, sample type, and bacteria under assessment. Similarly, in the human studies, the pooled prevalence of antibiotic resistance reported was 24% lower in the intervention groups compared with control groups, with a stronger association seen for humans with direct contact with food-producing animals.

Interpretation Interventions that restrict antibiotic use in food-producing animals are associated with a reduction in the presence of antibiotic-resistant bacteria in these animals. A smaller body of evidence suggests a similar association in the studied human populations, particularly those with direct exposure to food-producing animals. The implications for the general human population are less clear, given the low number of studies. The overall findings have directly informed the development of WHO guidelines on the use of antibiotics in food-producing animals.

Funding World Health Organization.

Introduction

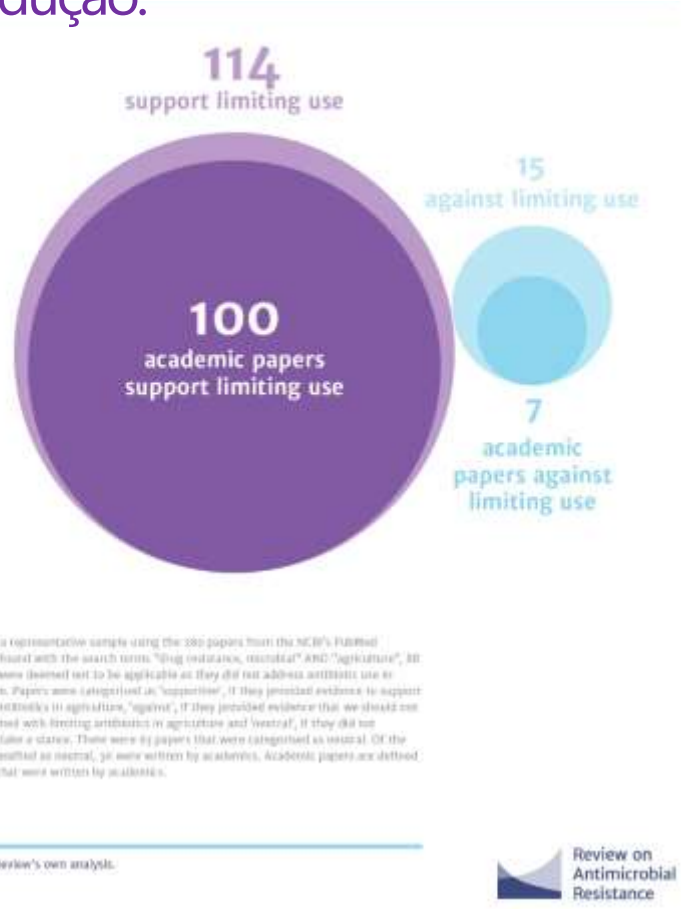
Infections with antibiotic-resistant bacteria result in increased mortality, morbidity, and social and economic costs.[1–4] By 2050, an estimated 10 million deaths per year globally will be attributable to antimicrobial resistance, with a cumulative economic cost of US$100 trillion.[5] Governments around the world have mobilised to address this pressing public health concern at the recent G20 Summit and the meeting of the UN General Assembly.[6,7] Further, WHO has created a set of strategies to combat rising antibiotic resistance, which include improving sanitation and hygiene to reduce overall infection rates, and optimising the use (and preventing the overuse) of antibiotics in both humans and animals.[8]

There is increasing recognition that widespread antibiotic use in agriculture and aquaculture might contribute to the development of resistance to antibiotics commonly used in human medicine,[9–11] especially given

"Medidas de restrição de uso de antibióticos em vacas leiteiras reduzem em 20% o risco de resistência aos antimicrobianos, principalmente nas pessoas em contato com os animais"

Tang et al., Lancet Planet Health 2017

Maioria dos artigos indica evidências para restrição do uso de antibióticos em animais de produção.



Consumidor

EXAME

FGTS Inpe EXAME Fórum Revista

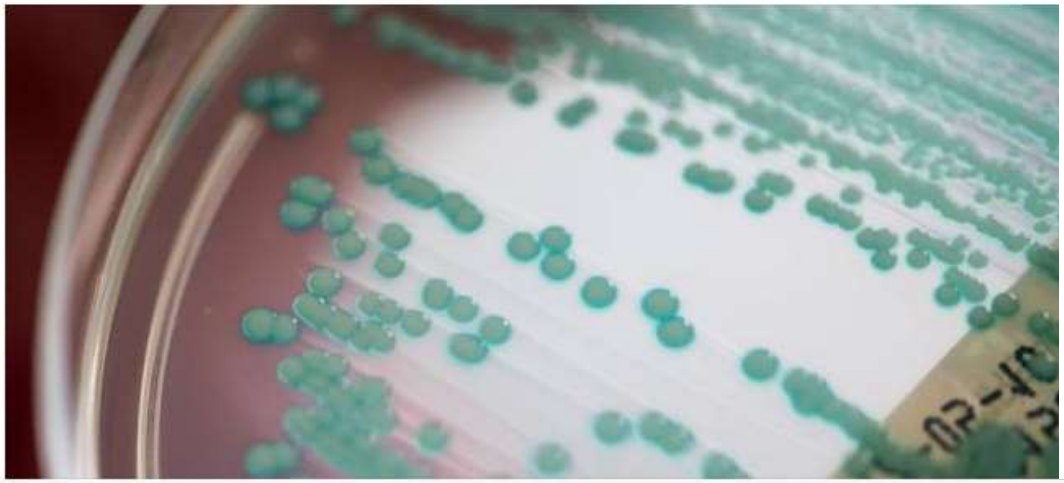
CIÊNCIA

“Superbactérias” resistentes poderão matar até 10 milhões em 2050

Instituto Lula divulgou que a causa da morte do neto do ex-presidente foi a bactéri Staphylococcus aureus, uma das que podem ser resistentes a antibióticos

Por **Carol Oliveira**

4 abr 2019, 18h48 - Publicado em 4 abr 2019, 14h48



EXAME

FGTS Inpe EXAME Fórum Revista News

Agronegócio é um dos principais vilões

Além do uso indiscriminado de antibióticos em humanos, o agronegócio é também um dos principais usuários desses medicamentos. Segundo a OMS, cerca de 80% do consumo de antibióticos no mundo acontece no setor animal, sobretudo na pecuária. E nem sempre é para tratar animais doentes: a professora de infectologia Juliana Lapa, da Faculdade de Medicina da Universidade de Brasília, lembra que muitos criadores de animais usam antibióticos simplesmente para que o animal cresça mais e possa ser vendido a preços maiores. “Se fosse para tratar os animais doentes, tudo bem. O problema é que é um uso irresponsável, e sem necessidade médica”, explica a especialista

O alto uso de antibióticos no agronegócio acaba indo parar no solo e nos lençóis freáticos. Assim, em última instância, pode também chegar aos humanos que sequer tomaram antibióticos, fazendo com que as bactérias de nosso corpo “reconheçam” mais substâncias do que o que ocorreria naturalmente.

Por isso, os infectologistas afirmam que são necessárias políticas públicas para reduzir o uso indiscriminado de antibióticos, tanto em humanos quanto no agronegócio. O Brasil lançou no fim do ano passado o seu Plano de Resistência aos Antibióticos, que inclui o financiamento de pesquisas inovadoras sobre o

PAN-BR AGRO

PLANO DE AÇÃO NACIONAL DE PREVENÇÃO E CONTROLE DA RESISTÊNCIA AOS ANTIMICROBIANOS, NO ÂMBITO DA AGROPECUÁRIA

AgroPrevine: Agindo agora para preservar a eficácia dos antibióticos no futuro

MINISTÉRIO DA AGRICULTURA, PECUÁRIA E ABASTECIMENTO

2018 - 2022

http://www.agricultura.gov.br/assuntos/insumos-agropecuarios/insumos-pecuarios/programas-especiais/resistencia-antimicrobianos/pan-br-agro

ALIANÇA

Para o uso responsável de antimicrobianos

Membros

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https://aliancaproteinaanimal.com.br

contato@filbrasil.org.br

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COMITÊ BRASILEIRO FIL/IDF

Fédération Internationale du Lait · FIL IDF · International Dairy Federation

MISSÕES PRINCIPAIS

LÁCTEOS SEGUROS

NUTRIÇÃO

SUSTENTABILIDADE

https://filbrasil.org.br

ALIANÇA

Para o uso responsável de antimicrobianos

Membros

https://aliancaproteinaanimal.com.br

http://www.vivalacteos.org.br/site/wp-content/uploads/2017/10/vivacartilha-20171005.pdf

https://www.zoetis.com.br/uso-responsavel-de-antibiotico/index.aspx

zoetis BRASIL

SOBRE NÓS PRODUTOS E SERVIÇOS RESPONSABILIDADE SOCIAL CON

INÍCIO / USO RESPONSÁVEL DE ANTIBIÓTICOS

NOSSA VISÃO UM RECURSO VALIOSO USO COM RESPONSABILIDADE O QUE ESTAMOS FAZENDO

Nós da Zoetis defendemos o uso responsável dos medicamentos antibióticos em animais, o que significa que:

Principle 1: Protect animal health and welfare in a unifie One Health approach.

Actions: We will meet the ethical requirement of protecting providing animal health products of the same high quality as developed for people. In addressing antimicrobial resistance One Health approach to cooperation, equally considering hu health, and environmental impact. To address AMR, we will partnerships between animal health companies, farmers, vet retailers, authorities and associations. We will reach out to s and ideas and are open to explore joint actions with others.

Principle 2: Use antibiotics judiciously and responsibly.

Actions: We promote the use of antibiotics for therapeutic Under the adage "as little as possible, as much as necessa we will continue to promote responsible/judicious use by pr clear labels and good technical advice. We recommend ant used under veterinary supervision where available. In count veterinary capabilities, imposing this requirement before ad shortage of veterinarians condemns animals to unnecessar We will increase our efforts to encourage investment in bett veterinary care. We actively contribute to the promotion of use principles and practices in national responsible use co

Principle 3: Promote disease prevention and increased acc to products and expertise.

Actions: We promote animal husbandry techniques that disease prevention by sharing our knowledge with produce to continuing to improve availability of vaccination. We will access and affordability of legitimate products to counter th illegal, low quality and fake products in some markets, and education and training on the dangers of their use. We will programs to increase the number of veterinarians in develo

This Commitment is supported by organizations representi

HealthforAnimals

HealthforAnimals Member Companies:

Bayer · Boehringer Ingelheim · Ceva · Elanco · MERCK Animal Health · Phibro · vetoquinol · Virbac · zoetis

HealthforAnimals Member Associations:

Argentina:	Caprove
Australia:	Animal Medicines Australia
Belgium:	PHARMA.BE
Brazil:	Sindicato Nacional da Industria de Produtos Para Saude Animal (SINDAN)
Canada:	Canadian Animal Health Institute
Chile:	Association Gremial de Laboratorios de productos Veterinarios
Denmark:	Danish Association for the Veterinary Pharmaceutical Industry
France:	Syndicat de L'industrie Du Médicaments et Reactif Veterinaires (SIMV)
Germany:	Bundesverband Für Tiergesundheit (BfT)
Europe:	AnimalhealthEurope
India:	Indian Federation of Animal Health Companies (INFAH)
Indonesia:	Indonesian Veterinary Drugs Association
Ireland:	Animal and Plant Health Association (APHA)
Italy:	Italian Animal Health Association (AISA)
Japan:	Japan Veterinary Products Association (JVPA)
Korea:	Korean Animal Health Products Association (KAHPA)
Mexico:	Industria Farmaceutica Veterinaria, Canifarma
Netherlands:	Fabrikanten en Importeurs van Diergeneesmiddelen (FIDIN)
New Zealand:	Association for Animal Health and Crop Protection (AGCARM)
Paraguay:	Cámara de Especialidades Veterinarias del Paraguay
Portugal:	Apifarma
South Africa:	South African Animal Health Association
Asia:	Asian Animal Health Association
Spain:	Veterindustria
Sweden:	Läkemedelsindustriföreningen (LIF)
Switzerland:	Scienceindustries
Thailand:	Thai Animal Health Products Association
United Kingdom:	National Office of Animal Health (NOAH)
United States:	Animal Health Institute (AHI)

Other Animal Medicines Associations:

Greece:	HAVEPHARM
Finland:	Finnish Veterinary Pharma Association (FVPA)
Poland:	Polish Association of Producers and Importers of Veterinary Medicinal Products
Czech Republic:	Czech and Slovak Association of Veterinary Pharmaceutical Companies (CSAVP)
Slovakia:	Czech and Slovak Association of Veterinary Pharmaceutical Companies (CSAVP)
Hungary:	HAVPMR
Norway:	Norwegian Association of Pharmaceutical Manufacturers (LMI)

Other Companies and Organizations:

Biogenesis
Colorado Serum Company
Covell
Dec-Vet Productos Vet
Dopharma
IDT BIOLOGIKA
Jurox
Kyoritsu Seiyaku
Laboratorio Bio-Vet
LABORATÓRIO Productos Vet
Nippon Zenyaku Kogyo (Zenoaq)
Pharmaxim
Orion
Ourofino
UZINAS CHIMICAS BRASILEIRAS
Vetnil

Support from the Veterinary Community:

Statement from World Veterinary Association:

The World Veterinary Association (WVA) represents around 500,000 veterinarians around the world. WVA commends HealthforAnimals for the development and launch of the Global Animal Health Sector Antibiotic Commitment WVA supports the initiatives and actions set out in the Commitment; they are in line with the WVA position on responsible use of medicines. WVA wishes HealthforAnimals much success in its endeavors to decrease the development of antimicrobial resistance.

Veterinarians play a primary role in assessing animal health, making a diagnosis, and recommending effective care programs including the use of antimicrobials which must be under veterinary care with a valid veterinarian-client-patient relationship.

The WVA position highlights the global basic principles of antimicrobial use such as:

- Therapeutic antimicrobials are licensed or registered for the purposes of disease treatment, control, and prevention.
- The availability of antimicrobials should be based on risk/benefit analysis that considers the importance of the antimicrobial to both veterinary and human medicine.
- Codes of good veterinary practice, quality assurance programs, herd health control and surveillance programs, and education programs should promote the responsible and prudent use of antimicrobials.
- Therapeutic antimicrobials should be used for as long as needed but for the shortest duration necessary, and at the appropriate dosage.

Statement from the World Small Animal Veterinary Association (WSAVA):

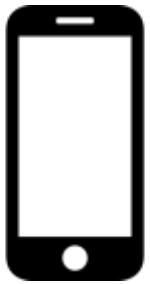
The World Small Veterinary Association (WSAVA) represents 200,000 veterinarians worldwide. Based on our active involvement in One Health and the recognition that AMR is very much a One Health issue within which companion animal practice shares responsibility for proper antimicrobial stewardship, the WSAVA endorses the HealthforAnimals antibiotic commitment, and looks forward to working collaboratively to realize its goals.

Mudanças do consumidor

Antes

Preço, sabor e conveniência

Sistemas de produção: produzir alimentos seguros, baratos e de alta qualidade



Agora/futuro

Saúde e bem-estar

Impacto social/ambiental,

Transparência, experiência pessoal

Desafio de comunicar aos consumidores a necessidade de uso de:

1. Antibióticos
2. Hormônios: BST, ocitocina, hormônios reprodutivos
3. Bem-estar animal


terraviva
ORIGEM MINAS
SEBRAE

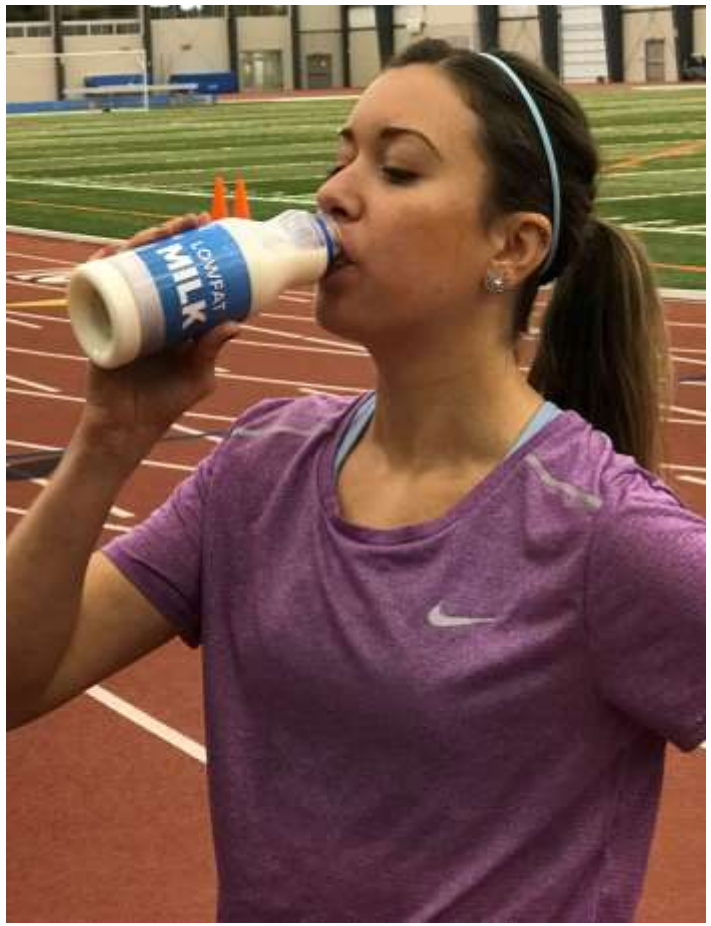
O que tem mudado no consumidor?

1 Novos estilos/valores

- Mais ocupados,
- Preocupados: saúde, ambiente
- Alimento: decisão do consumidor que afeta o mundo

2 Mais conectados

- Excesso de informações: confiáveis?
- Maior interação/questionamentos
- É seguro? É saudável? É sustentável? É confiável? Garante bem-estar animal?



3 Busca por transparência

- Livre de ? Antibióticos
- Hormônios, pesticidas, lactose

4 Escolhas éticas

- Bem-estar animal
- Sustentabilidade
- Ambiente

Wenck e. Wenck, NMC, 2019 Are You Ready for the Future of Food?

Como o visão do consumidor afeta a fazenda?

Alimentos saudáveis para vida melhor e mais longa

- Além de alimento: SAÚDE
- Como foram produzidos? Produção familiar ou industrial?
- Livre de "antibióticos, hormônios, químicos"

Escolhas de consumo ajudam sustentabilidade e futuro melhor do planeta

- Consumidor quer comprar um estilo de vida, não um produto
- Produção X efeito estufa, água

Escolhas éticas

- Bem estar: garantir as 5 liberdades básicas dos animais
- Relação com funcionários/fornecedores
- Produção local/familiar

Transparência e rastreabilidade

- Construir relações de confiança com consumidor
- De onde veio? Como foi produzido?

Wenck e Wenck, Are You Ready for the Future of Food? NMC, 2019

Saiba ainda mais sobre Sadia Bio

Cuidado em primeiro lugar

Cada vez mais aumenta o interesse pela origem dos alimentos e a forma como são produzidos

Cuidado e carinho

Conheça a rotina das famílias que produzem a Sadia Bio

ler mais

Origem

Saiba de onde vem o seu frango Sadia Bio

ler mais

Família Trentin

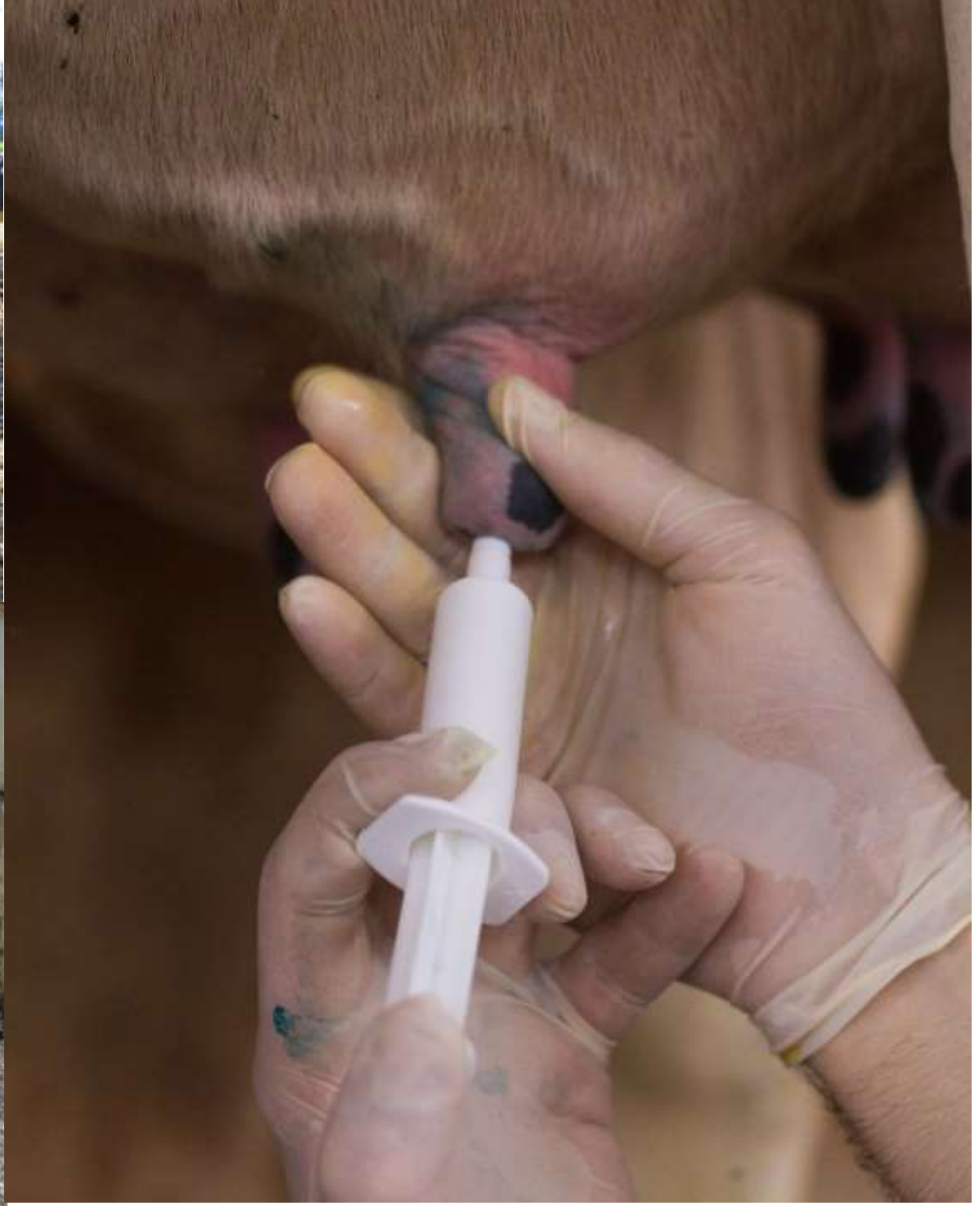
Dedicação total na criação dos frangos da Sadia Bio

ler mais

Topo

Qualileite

Temos que contar a boa história do leite



Redução de uso de antibiótico na Holanda

2000s: *S. aureus* MR de origem de animais foi identificado em paciente humano

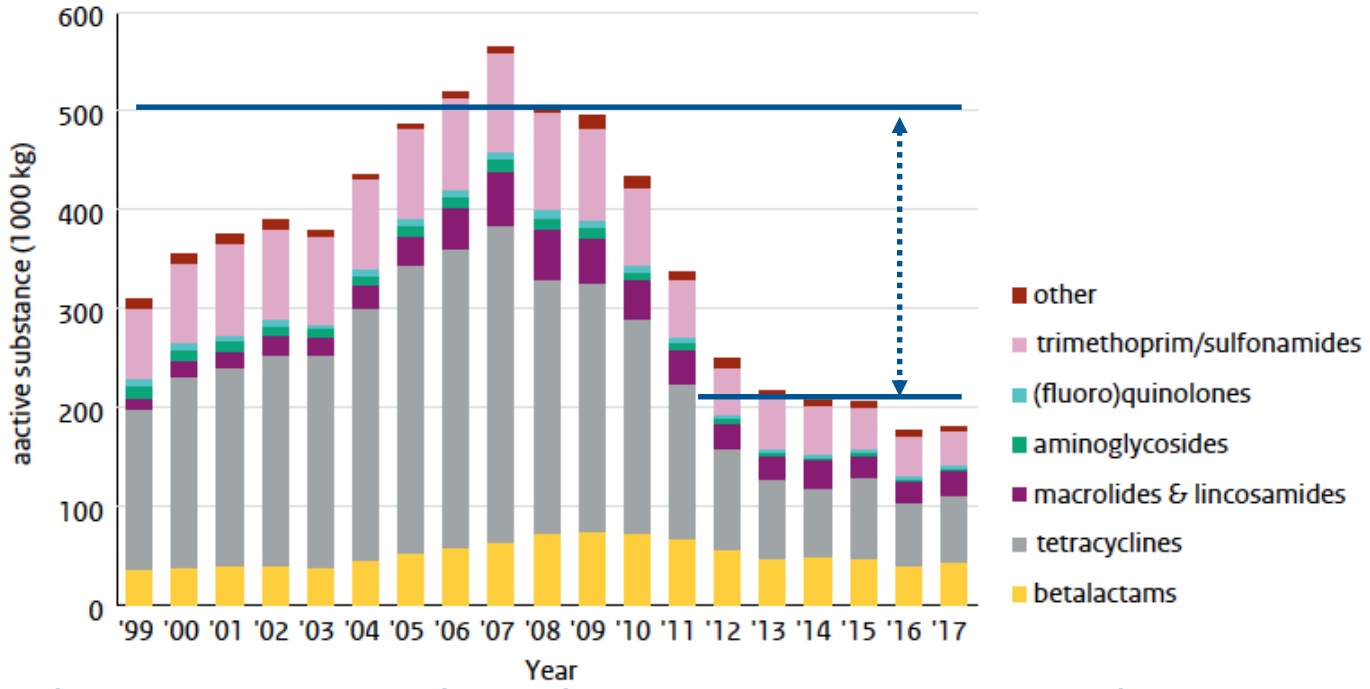
2009: mandatório reduzir o uso de antibióticos na produção animal

50% (2013)

70% (2015)

Proibição de uso preventivo (aditivo, tratamento vaca seca)

Figure ABuse01 Antimicrobial veterinary medicinal product sales 1999-2017 in kg (thousands).



https://www.wur.nl/en/show/Maran-rapport-2018.htm

50 anos de controle de mastite (1969)

Control of Mastitis in the Dairy Herd by Hygiene and Management

F. K. NEAVE, F. H. DODD, R. G. KINGWILL, and D. R. WESTGARTH
National Institute for Research in Dairying, Shinfield, Reading, England

Abstract

An examination has been made of the value of hygiene systems in the control of mastitis and how this control can be improved by changes in hygiene and milking machines and by better use of therapy.

A comprehensive hygiene scheme for controlling mastitis has two objectives: prevention of intramammary infection during milking and prevention of infection between one milking and the next. Indirect evidence suggests that the latter objective is the more important. However, the complete prevention of the transfer of mastitis pathogens from cow to cow has not been found possible, even with a comprehensive hygiene system.

Nevertheless, hygiene systems designed to prevent the transfer of pathogens and more particularly to eliminate residual contamination at the completion of milking have been shown to reduce the number of new infections by about half. The combination of such hygiene systems with effective antibiotic therapy, which reduces the duration of infection, generally resulted in a decrease of more than 50% in the incidence of infection within a year.

It is probable that further reduction in the incidence of infection can be made by improving management techniques. But it is more likely that this will be achieved by improved methods of mechanical milking designed to prevent infection occurring during milking and by the use of better teat dips than by the development of more comprehensive hygiene systems.

It has been generally assumed after the classical studies of Minett, Stableforth, and Edwards (14) in building up herds free of *Streptococcus agalactiae*, that if hygienic methods are to reduce new udder infection they must prevent or largely prevent the transfer of the principal mastitis pathogens from cow to cow.

In England about 90% of new udder infections, including both clinical cases of mastitis and subclinical intramammary infections, are caused by streptococci and *Staphylococcus aureus* (Table 1), and 50% of the subclinical infections cause clinical symptoms within a year. Although information on the habitat of these organisms outside the udder of the dairy cow is incomplete, the major source of *S. agalactiae* and *S. aureus* in a dairy herd is infected milk (3, 7), and in the absence of an effective hygiene system they are transmitted during milking procedures to the teat skin of successive cows (25). Teat blemishes are also an important source of both streptococci and staphylococci and at any one time about 70% of teat blemishes are infected or contaminated with *S. aureus*.

TABLE 1. New udder infections in lactating cows during a period of 6 to 12 months in 16 herds with about 1,100 cows (1962-65).*

Types of infections	(no.)		(%)	
Total infections[b]	1,414			
S. aureus infections	659		47	
Str. agalactiae infections	35		2	
Str. dysgalactiae infections	396		28	
S.uberis infections	211	642	15	45
Other types of infections	55		4	
Primary pathogens not isolated[c]	58		4	

* About 50% of cows infected at any one time. Hygiene: udders washed with water; no disinfection of hands, teats, or teat cups.
[b] Subclinical and clinical mastitis.
[c] Clear clinical symptoms of mastitis but no organisms found, or else the flora consisted of micrococci, *Corynebacterium bovis*, or was very mixed.

Prevention of this spread of pathogens from cow to cow implies that the teats must be kept free of pathogens. To this end methods have been investigated including the use of disinfectants, paper towels, or boiled cloths for washing each individual udder, the wearing of rubber gloves by the milker, and the pasteurization of teat cup clusters before each cow is milked, together with post-milking disinfectant teat dips aimed at destroying any pathogens remaining on the teats after milking. A routine combining all these procedures is referred to as full hygiene (4, 9, 18).

It has been shown that useful hygiene studies can be made within cows using a half-udder milking machine (Table 2) and exposing

Dodd J Dairy Sci. 1969;52:689–95.

SYMPOSIUM: Mastitis Control: Methods and Progress [1]

G. H. SCHMIDT
Department of Animal Science, Cornell University, Ithaca, New York 14850

Introduction

Mastitis has been and continues to be the most costly dairy cattle disease confronting the dairy farmer. This is true in spite of a large amount of research and extension effort that has been directed towards solving the problem.

A true mastitis control program must be directed towards the prevention of the disease. When a disease does exist on the farm, as it does with mastitis, the control program must be directed towards eliminating the existing problem and preventing further problems.

Today we want to look at the components of a mastitis control program. This will include an over-all view of developing a mastitis control problem, followed by a discussion of the individual components of the program, which include sanitation, management, therapy, and vaccination. This will be followed by a discussion of the Interstate Milk Shippers' Abnormal Milk Control Program.

[1] Symposium presented at the Sixty-third Annual Meeting of the American Dairy Science Association, The Ohio State University, Columbus, June 19, 1968.

Mastitis—The Strategy of Control

F. H. DODD, D. R. WESTGARTH, F. K. NEAVE, and R. G. KINGWILL
National Institute for Research in Dairying, Shinfield, Reading, England

At the present time we cannot conceive of any system of completely preventing all udder disease; therefore, the object of a control must be to reduce udder infection to a low level. Because at least 80% of infection is due to staphylococci, *Streptococcus agalactiae*, *Streptococcus dysgalactiae*, and *Streptococcus uberis*, the reduction of infection by these pathogens must be the main aim. This does not conflict with the farmers' requirement that a control should reduce clinical mastitis, since this mastitis is nearly always preceded by subclinical infection. To be accepted, a control must cost much less than the losses caused by the disease, it must be relatively simple to carry out, there should be good experimental evidence that the control works under a range of conditions, and it must be obvious to the farmers who adopt the method that clinical mastitis is much reduced. At the present time none of the control systems that have been proposed or are in operation fulfill these requirements.

In practice, a control depends on selecting from the many factors which have been found to influence the incidence of disease those, if any, which will reduce new infection or eliminate established infection sufficiently to greatly reduce the incidence of the disease. This paper is not concerned with this selection; rather, with the strategy with which the chosen techniques can be used to give the greatest reduction in disease. The strategy of control of a disease situation as complex as bovine mastitis is not a matter of guesswork, but will be determined by measuring or calculating the effects on the rates of new infection and elimination of infection of variation in specific environmental and physiological factors. From this study of a changing system, factors will be determined which, operating singly or jointly, will give the greatest reduction in infection immediately, and in the long term. Ultimately, when we have such a strategy it will be a biological model expressed mathematically. The study reported here is the first step, mostly descriptive, but with some quantitative relationships.

Source of Data

The data used for this analysis are a complete record of the subclinical infection and clinical mastitis that occurred in 721 cows in 14 herds during 12 months (1). The clinical mastitis was detected by the stockmen using foremilk cups and subclinical infection by accepted bacteriological tests on aseptically drawn foremilk samples taken at four monthly intervals and at drying-off, calving, and before and after antibiotic therapy was given. A new infection or a recovery was always confirmed by further tests. During the year seven of the herds practiced a hygiene system and seven did not. Hygiene influenced the infection rate, but for simplicity in most of these analyses no distinction has been made between the results of the two groups of herds. A brief summary

Neave J Dairy Sci.1969;52:696–707.

1 Redução de novas infecções:

menor contaminação dos tetos (higiene)

2 Eliminação de infecções existentes:

descarte, tratamento lactação e secagem

Programa dos 5 pontos (1974)

1. Manutenção equipamento de ordenha
2. Pós-dipping/Manejo de ordenha
3. Tratamento de **TODOS** casos clínicos
4. Tratamento de vaca seca
5. Descarte de vacas com mastite crônica

New Zealand leaflet (MAF, 1974)

CCS tanque

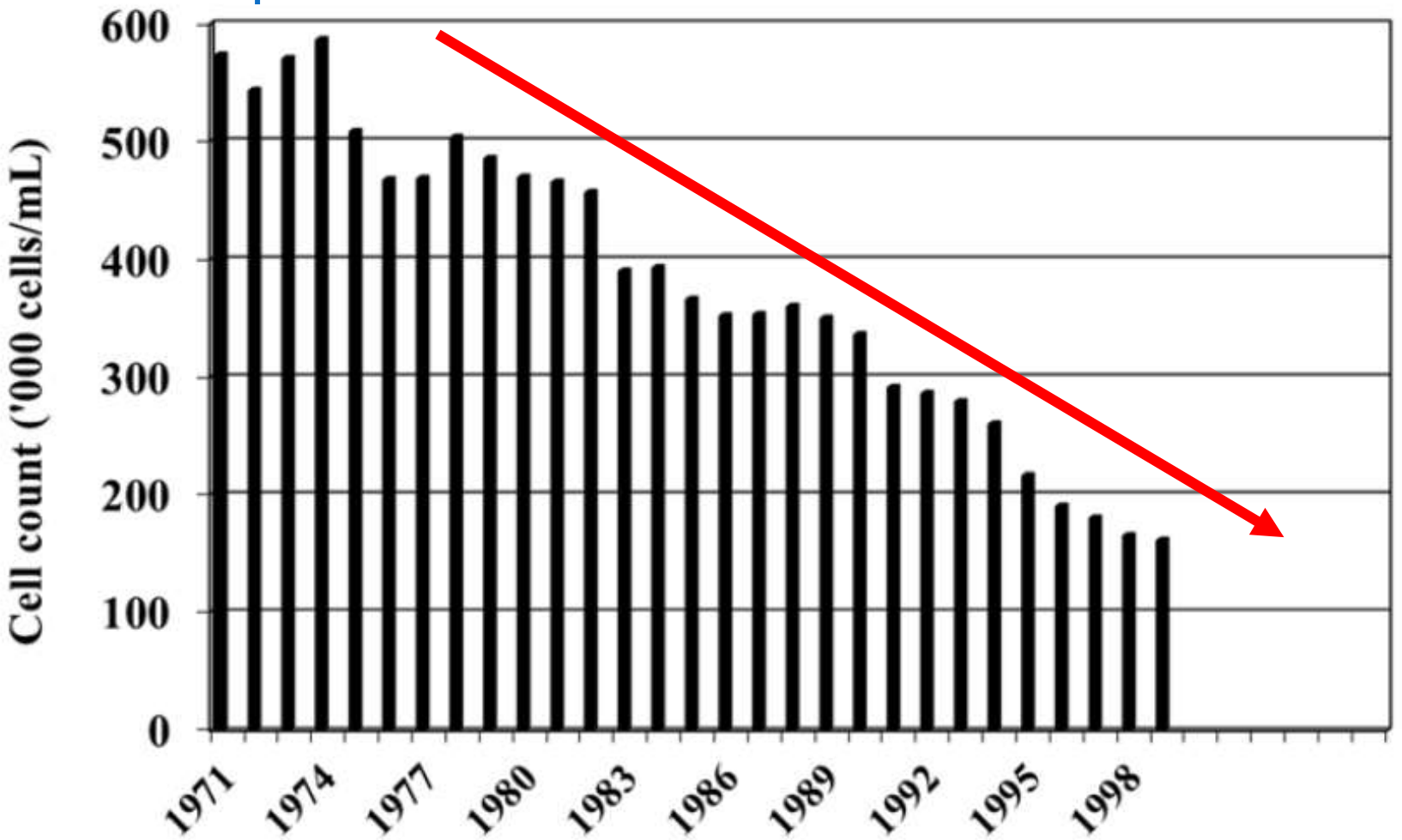
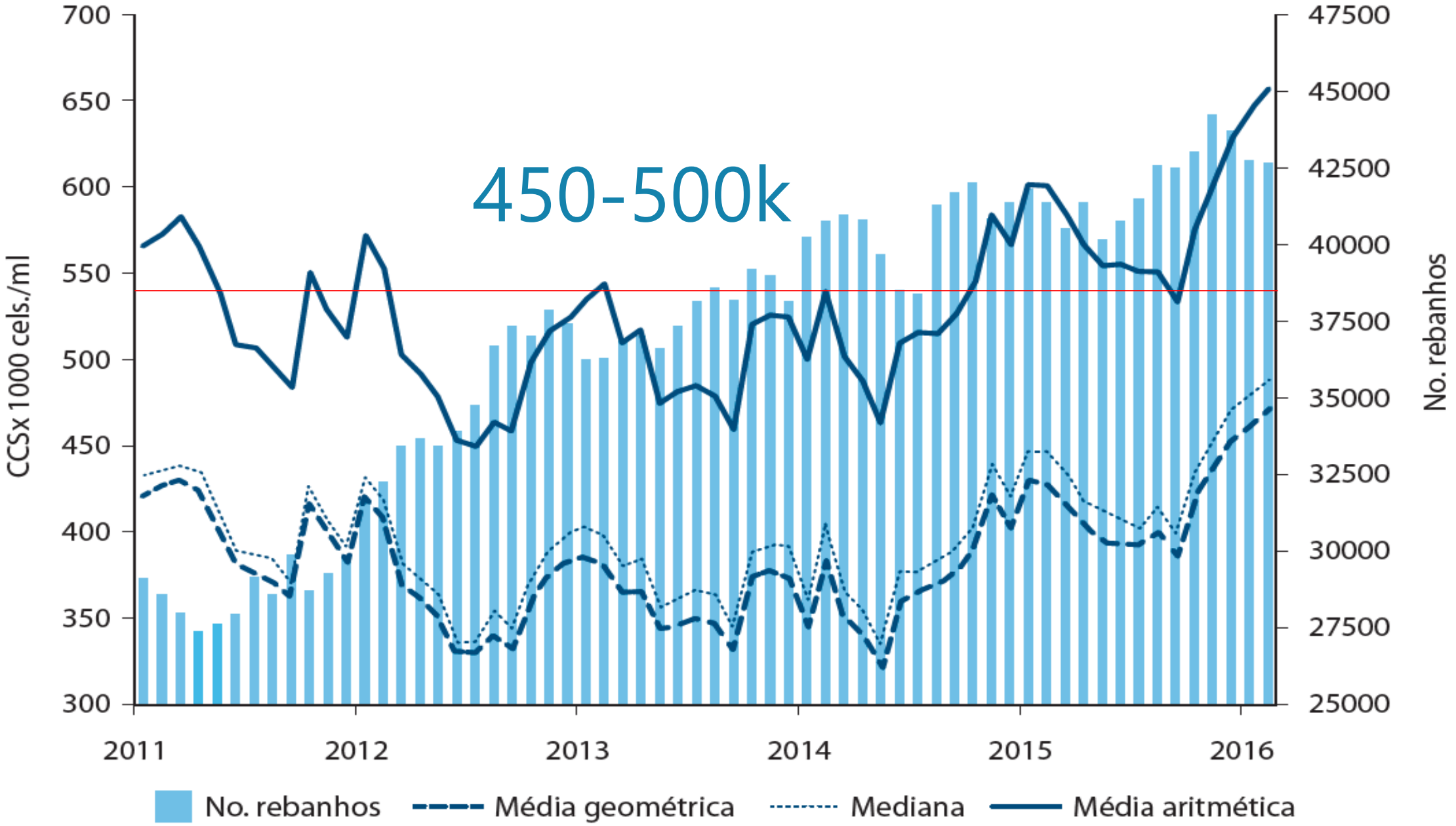


Figure 8. National cell count data for England & Wales showing improvement from start of Five-point plan.

Qualileite



Fonte: Busanello et al., 2017

Qualileite

Incidência de mastite clínica

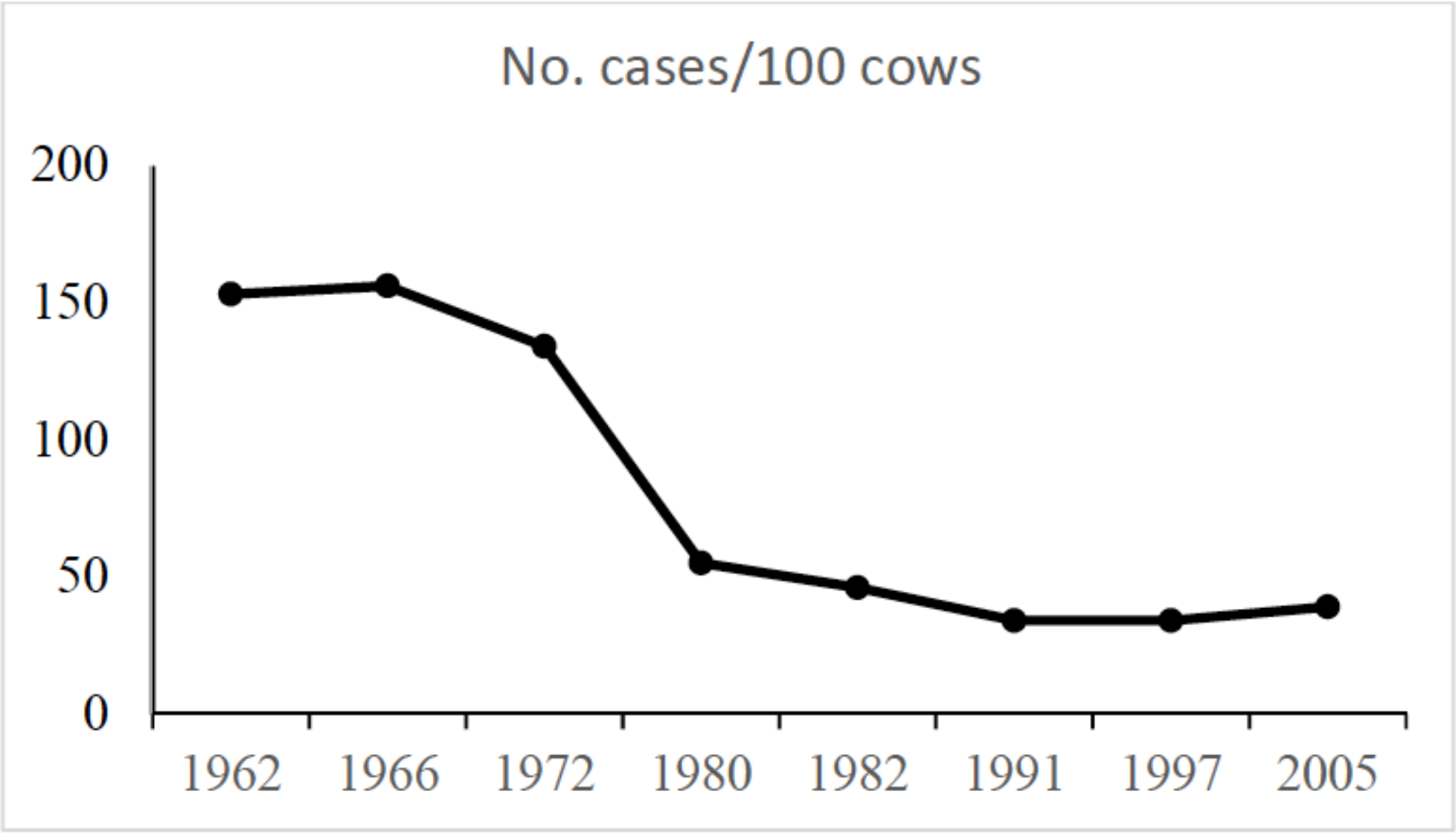


Figure 9. Clinical cases at Institute for Animal Health Chesridge herd showing effect of applying the Five-point plan.

Contents lists available at ScienceDirect

Preventive Veterinary Medicine

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Association of herd-level risk factors and incidence rate of clinical mastitis in 20 Brazilian dairy herds

Tiago Tomazi[a], Gabriel C. Ferreira[a], Alessandra M. Orsi[a], Juliano L. Gonçalves[a], Paula A. Ospina[b], Daryl V. Nydam[b], Paolo Moroni[b,c], Marcos V. dos Santos[a,*]

20

4390/ mês

5957 casos

11,5 casos/vaca/mês

Reduzir a mastite em 3 passos

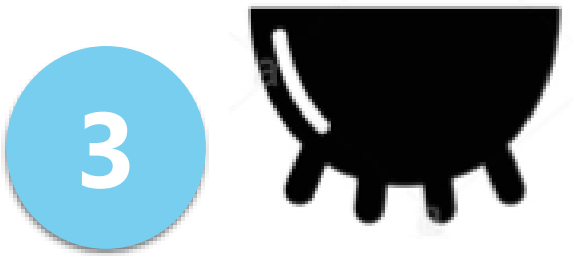
Programa dos
10 pontos
NMC

Monitoramento/meta

1. Clínica
2. Subclíncia
3. CCS Tanque

Causas

1. Causas
2. Quando
3. Novos/crônicos



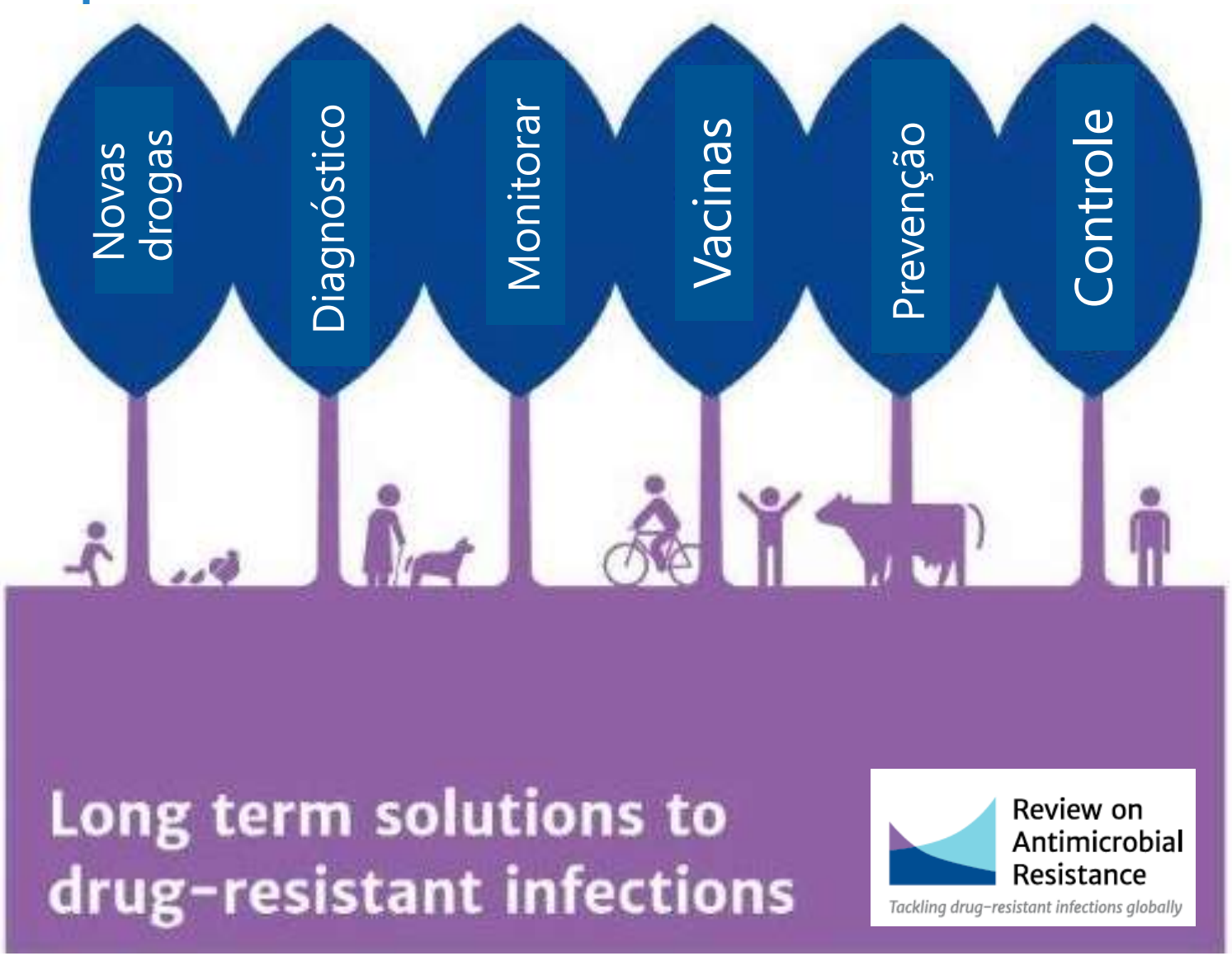
1. Rotina ordenha
2. Segregação
3. Secagem
4. Descarte
5. **Tratamento**
6. Ambiente
7. Vacinação

Mastite : uso responsável de antimicrobianos

Resistência aos antimicrobianos: prioridade de saúde pública

Mastite: o principal uso de antimicrobianos em vacas leiteiras (70%)

Uso de leite de descarte para bezerras



"O menos possível, mas o necessário"

Como usar antibióticos de forma racional?

1 Prevenção + diagnóstico rápido

diagnóstico na fazenda

monitoramento: CCS, casos clínicos

2 Tratamento seletivo de mastite

lactação e secagem

Causas de mastite clínica

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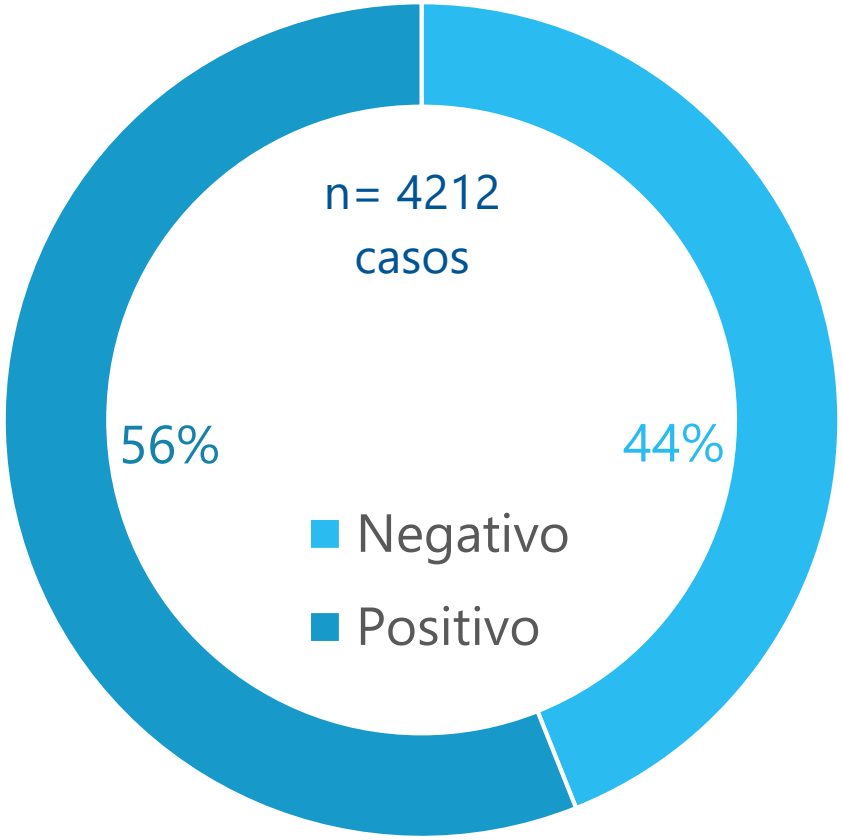
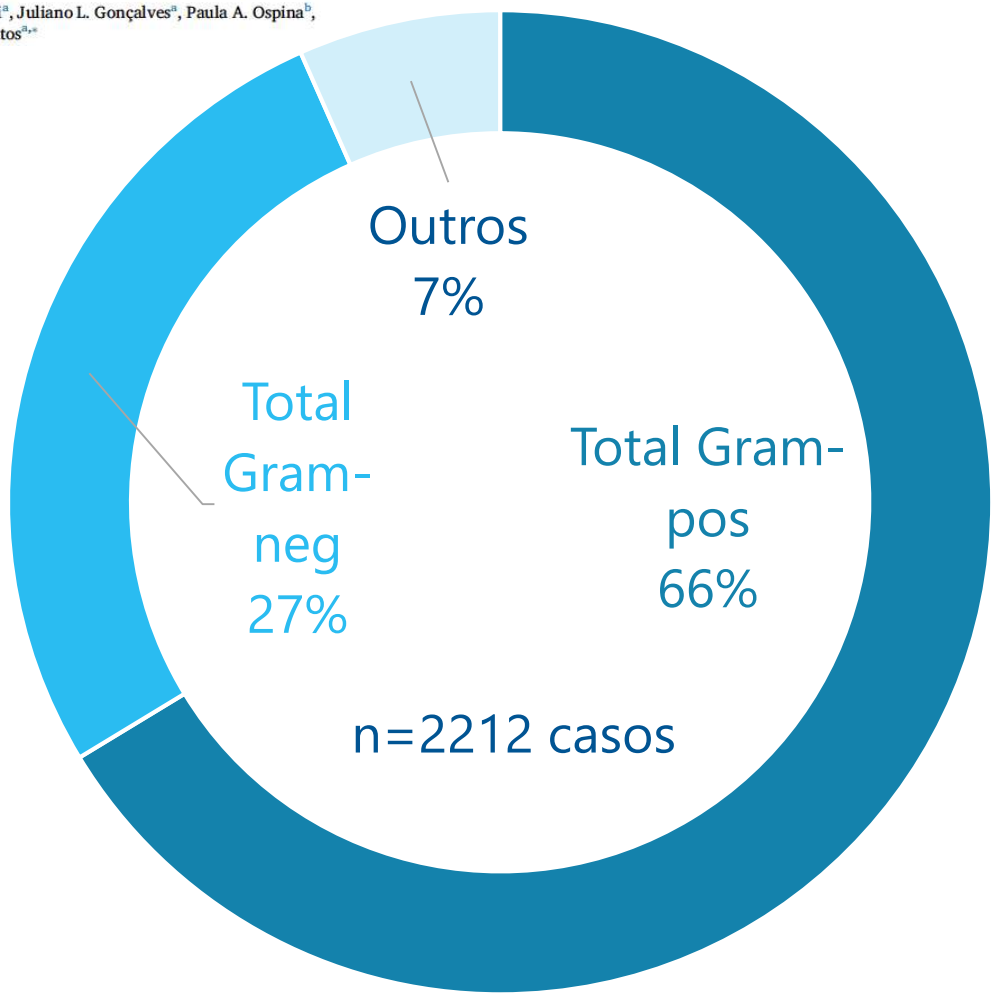




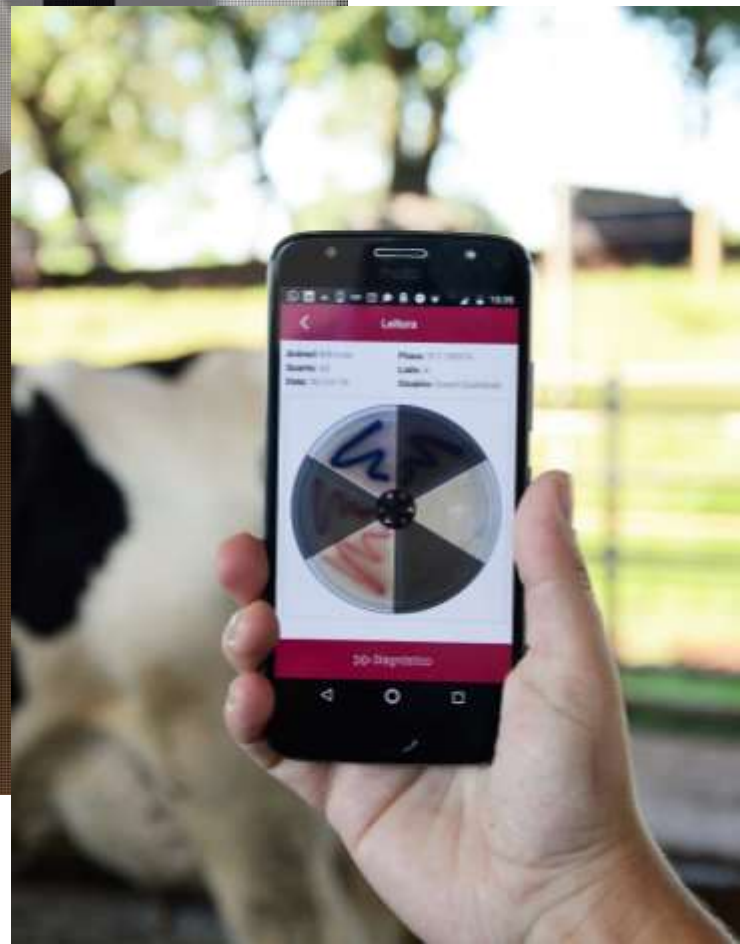
Tomazi, et al 2018

nFarm

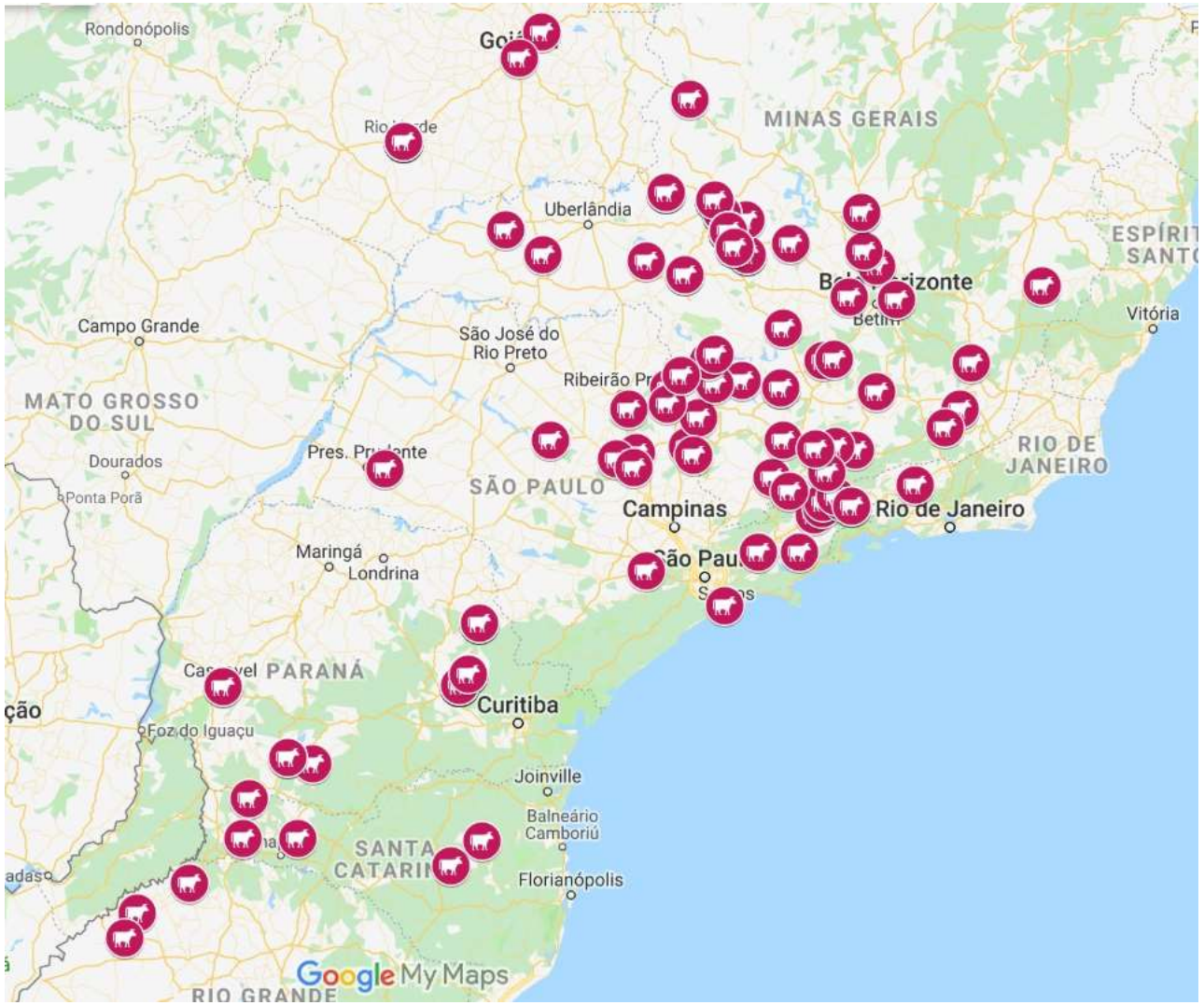
Home Sobre Benefícios Solução Planos Time Artigos Contato LOGIN

Inovando no controle da mastite!

SAIBA MAIS CONTATO



Sistema Onfarm (11 meses)

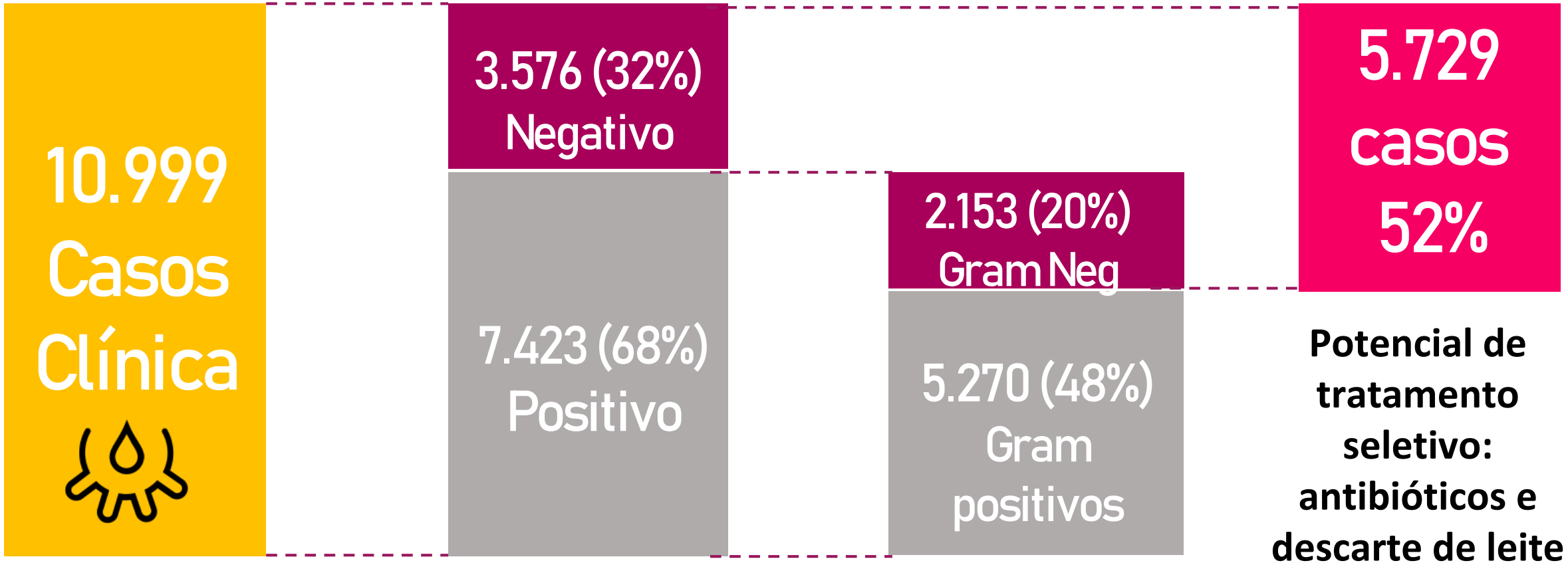


243
Fazendas

17.834
Casos

37.000
Vacas

Potencial de redução no uso de antibióticos



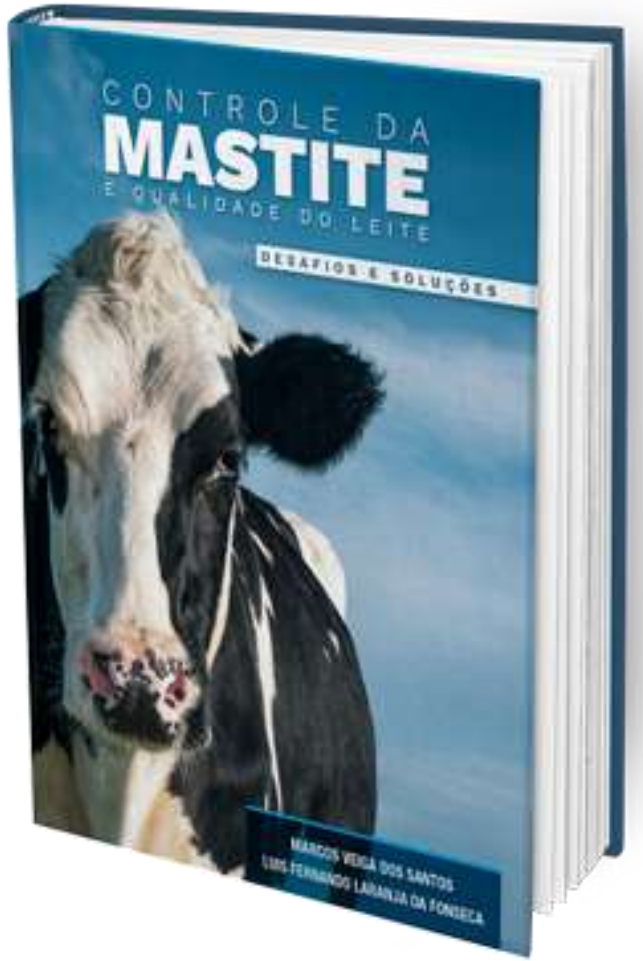
Fonte: Banco de dados OnFarm – Junho/19

www.qualileite.org
mveiga@usp.br

2000

2007

Só o conhecimento transforma



bit.ly/livromastite

www.qualileite.org

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