



Special provisions for the reduction of the consumption of antibiotics in pig holdings (the yellow card initiative)

Background

From 2001-2009 the antibiotic consumption in animal production was increasing, resulting in a 45 % rise from 2001 to 2009 (Danmap). More than 80 % of the antibiotics prescribed were used in the pig sector.

It is well established that rising antibiotic consumption leads to increased antimicrobial resistance against the antibiotics to which the bacteria have been exposed. Increased antimicrobial resistance poses risks to human and animal health because of the potential risk of treatment failures when bacterial infections are treated with antibiotics to which the bacteria are resistant.

In order to reverse the trend of the constantly increasing antibiotic consumption in the pig production and the risk posed by increasing antimicrobial resistance, the Danish Veterinary and Food Administration (DVFA) established the yellow card initiative in 2010.

Purpose and goal of the yellow card initiative

For herds of pigs and cattle thresholds for use of antibiotics were formulated. The threshold is given in Animal Daily Dose per 100 animals per day. When the consumption of antibiotics in a herd exceeds the threshold the number of annual advisory inspections by a veterinary practitioner increases.

When the consumption of antibiotics in a pig herd exceeds the threshold the farmer gets a warning i.e. a yellow card.

The yellow card initiative is designed to target the highest consumers of antibiotics in the pig production, since as stated more than 80 % of the antibiotics prescribed are used in the pig sector. The goal was to achieve a 10 % reduction on 2009 consumption levels as measured in kg by 2013. The yellow card initiative was – when instituted – also an incentive to help the pig producers to achieve this goal. The goal of a 10 % reduction from 2010 to 2013 was met (10.2 %).

An action plan to combat livestock-associated MRSA has set targets for reducing antibiotic consumption for pigs further. The target set is a reduction of 15 % from 2015 - 2018.

On that background a new model was implemented in July 2016 (The Differentiated Yellow Card) to also promote responsible use. All classes of antibiotics are assigned a factor, called Weighted Animal Daily Dose (Weighted ADD). Antibiotics which is critical important for human use such as fluoroquinolones is assigned a factor 10 while simple penicillin is assigned factor 1. This means that use of antibiotics with a higher factor adds more to the medicine account of the herd and thereby the herd will reach the threshold for use of antibiotics faster.

Thresholds

Each year the DVFA will issue thresholds for antibiotic consumption in different age groups of pigs and cattle, as antibiotic consumption varies in the different age groups.

Tabel 1. Development in thresholds for pigs.

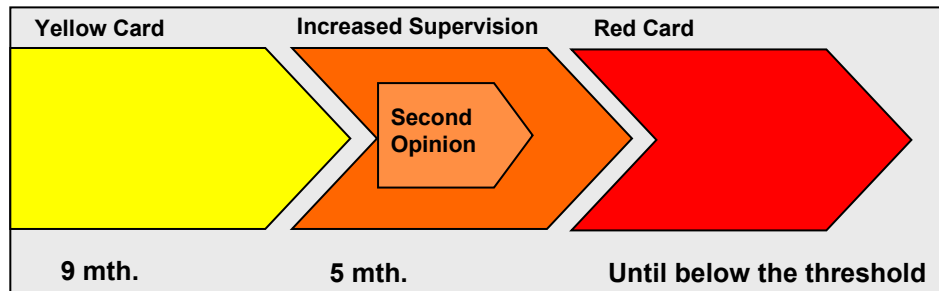
Thresholds for pigs (in ADD per 100 animals per day*)	Piglets, sows, gilts and boars	Weaner pigs up to 30 kg	Finishers
Herd average Nationwide (2009)	2,6	14	4
Thresholds September 2010 – May 2013	5,2	28	8
Thresholds June 2013- October 2014	5	25	7
Thresholds November 2014 – March 2017	4,3	22,9	5,9
Thresholds April 2017* - December 2017	4,1	21,8	5,6
Thresholds Januar 2018 →	3,8	20,2	5,2

* Thresholds for pigs is changed from the 31th of March 2017 to weighted ADDs pr. 100 animals per day

Tabel 2. Thresholds for cattle.

Thresholds for cattle (in ADD pr. 100 animals per day)	Calves less than 12 months and juveniles between 12 and 24 months.	Cows, as well as bulls, heifers and steers over 24 months.
Thresholds September 2010	1,2	2,1

The Yellow Card



Figur 1. The Yellow Card Initiative in short

If the average antibiotic consumption in a holding within a nine month period exceeds one or more of the above threshold levels, the DVFA may issue an order or injunction (the yellow card) compelling the owner of the holding to reduce the antibiotic consumption in the holding below the maximum limits within nine months of the issuance of the injunction.

During the nine month period, the DVFA may also forbid the owner to use and store any veterinary medicine product containing antibiotics in the holding if the product in question has been represcribed more than once¹ and is to be administered via feed or drinking water. In addition, the DVFA may carry out one or more unannounced inspection visits to the holding during the nine month period while the injunction is in effect.

Increased Supervision

If the antibiotic consumption in the holding has not been reduced below the maximum limits after the expiry of the nine month period, the DVFA may issue another injunction compelling the owner of the holding to seek supplementary expert advice from an impartial veterinarian² with a view to reducing the antibiotic consumption in the holding below the maximum limits within nine months of the issuance of the second injunction. This injunction may also be issued if the antibiotic consumption in the holding has been reduced below the maximum limits after the expiry of the nine month period but has again risen above the maximum limits in the succeeding 12 month period after the expiry of the nine month period. The expert advice must include a plan of action with concrete suggestions for interventions to reduce the consumption of antibiotics in the holding.

As with the yellow card injunction, the DVFA may also forbid the owner to use and store drugs containing antibiotics in the holding if the drug in question has been represcribed more than once and is to be administered via feed or drinking water. Also, the DVFA may carry out one or more unannounced inspection visits to the holding during the five month period while the injunction is in effect.

¹ Prescription only medicine can only be used and stored for a limited period of time. To prolong the period the veterinarian can 'represcribe' the medicine for a new limited period of time.

² A veterinarian other than the regular veterinarian of the holding.

The Red Card

If the antibiotic consumption in the holding has not been reduced below the maximum limits after the expiry of a five month period following the second injunction, the DVFA may issue another injunction compelling the owner of the holding to implement one or more initiatives mentioned in the above mentioned plan of action or – as a last resort – issue an injunction compelling the owner of the holding to reduce the stocking density with a suitable percentage to ensure that the consumption is reduced to a level below the threshold levels. The injunction will remain in force until the consumption of antibiotics is below the threshold levels. As with the yellow card injunction, the DVFA may also forbid the owner to use and store any veterinary medicine product containing antibiotics in the holding if the drug in question has been prescribed more than once and is to be administered via feed or drinking water. Also, the DVFA may carry out one or more unannounced inspection visits to the holding while the injunction is in effect until the antibiotic consumption in the holding has been reduced below the threshold levels.

Economic Consequences

The owner of a holding is required to pay a fee for each injunction or prohibition issued and for all inspection visits carried out in accordance with the special provisions. All other expenses, including the costs of the expert advice of the impartial veterinarian must also be paid by the owner.

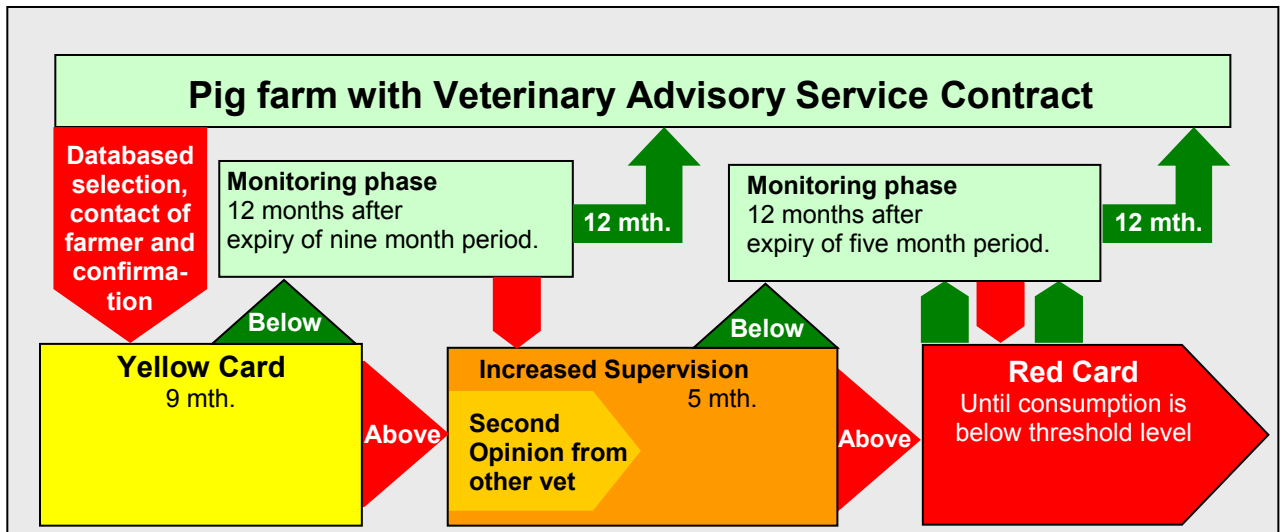
Legislation

The requirements of the yellow card initiative are set out in Government Order No. 179 of February 26th 2014 on special provisions for the reduction of the consumption of antibiotics in pig holdings³. The thresholds are set out in Government Order No. 294 of 29th March 2017 on thresholds for use of antibiotics and mortality in herds of cattle and pigs⁴. Approval of veterinarians to carry out supplementary veterinary assessments for reducing antibiotic consumption in pigs are regulated in Government Order No. 1086 of 29th November 2011⁵.

³ Bekendtgørelse nr. 179 af 26. februar 2014 om særlige foranstaltninger til nedbringelse af antibiotikaforbruget i svinebesætninger, med senere ændringer

⁴ Bekendtgørelse nr. 294 af 29. marts 2017 om grænseværdier for antibiotikaforbrug og dødelighed i kvæg- og svinebesætninger

⁵ Bekendtgørelse nr. 1086 af 29. november 2011 om godkendelse af dyrlæger til at foretage supplerende veterinærfaglige vurderinger med henblik på nedbringelse af antibiotikaforbruget i svinebesætninger



Figur 2. The Yellow Card Initiative in detail