

A homocisteína é um aminoácido intermediário tóxico não proteinogénico que se encontra em várias vias do organismo. A diminuição da atividade de CBS eleva a concentração de metionina e de homocisteína e diminui a concentração de cistationina e cisteína. A CBS regula a quantidade de enxofre orgânico da metionina que é utilizada para a biossíntese de variados componentes que contenham enxofre, nomeadamente, a homocisteína e a cisteína. De acordo com Duaa W e colaboradores, a homocistinúria tem uma incidência de 1/200 000 a 1/335 000 nascimentos [1]. A patologia é diagnosticada na infância devido a inúmeras manifestações clínicas durante

este período. O paciente pode desenvolver sintomas como o Síndrome de Marfan e pectus excavatum. Caso a homocistinúria seja diagnosticada com antecedência, o tratamento indicado é uma dieta com baixa quantidade de proteínas e ingestão de suplementos com vitamina B6 e ácido fólico. Além disso, Tarun Kumar e colaboradores abordam novos tratamentos como a restauração funcional para a mutação de CBS e a inibição de stress [2]. **Conclusão:** Conclui-se, assim, que a homocistinúria resulta da disfunção da enzima CBS e a forma mais frequente de se expressar inclui o comportamento intelectual e esquelético anormal.

Palavras-chave: homocistinúria, homocisteína, metionina, cistationina beta-sintetase

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POSTER 155

Illegal trade of companion animals into the European Union – a public health concern

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Resumo

Introduction: The close contact between humans and companion animals has been increased worldwide. However, the animals are reservoirs and susceptible to zoonotic pathogens, and transporting animals between regions/countries carries with it the risk of repositioning the pathogens they may contain [1,2]. The free movement of people and their pets into the European Union is a risk factor for the translocation of diseases and their hosts. Added to this is the serious and current problem of the illegal trade associated with companion animals, which poses several sanitary, ethical and legal issues [3,4]. **Objectives:** In this study, the aim was to highlight the potential zoonotic risks associated to the illegal trade of companion animals in Europe. **Methods:** The search of relevant articles was performed on Pubmed databases between February and March 2022, using the following keywords "companion animals", "illegal trade" and "zoonoses". **Results:** The results showed that the dog is the most companion animal associated with the illegal animal trade. Controlled dogs

showed a high prevalence of *Giardia* spp, *Microsporum canis* and *Salmonella* as major zoonotic pathogens [3]. Other zoonotic diseases like rabies, toxoplasmoses, echinococcosis and leishmania were also described [1]. Based on the pilot model that comprised several institutions to control illegal animal trade demonstrated that the major of confiscated companion animals in Italy and Austria were transported without a transponder (58%), passport (68%), TRACES (85%), rabies vaccination (68%) and veterinary examination 48h before the travel (93%). Without veterinary control, these animals when entering into the country could expose the naïve animal population and humans to zoonotic diseases [4]. **Conclusions:** For international safe transport of companion animals, this review highlighted the necessity of the education/sensitization of owners to the animal and human health risk, as well as, the strict veterinary control movements of companion animals, in particular dogs, into the European Union, preventing the dissemination and circulating of zoonotic pathogens.

Keywords: companion animals; illegal trade; zoonoses; public health

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POSTER 156

Strategies to mitigate antimicrobial resistance in livestock production

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Resumo

Introduction: Antibiotics are used in livestock farms for prevention and treatment of animal infections for decades [1]. However, their massive and inappropriate use for a long time has greatly contributed to the global spread of antimicrobial resistance through the direct contact with animals, the food chain or contaminated environments. With this increased concern about the impact of livestock on the burden of antimicrobial resistance worldwide, several measures have been implemented under a One Health approach [1-3]. **Objectives:** The aim of this work was to highlight the impact of antibiotic resistance in livestock production and its mitigation strategies. **Methods:** The search of relevant articles was performed on Pubmed database between February and March 2022, using the following keywords "mitigating", "antibiotic resistance" and "livestock". **Results:** As promising measures to reduce antibiotic use in animal production the following were identified: education and sensitization of farmers about antimicrobial use, enforcing existing veterinary legislation and establishing antimicrobials surveillance system. It also included amelioration of climate and housing conditions, biosecurity and well-being measures,

and infectious diseases control [3,4]. Other strategies like farm management, antibiotic stewardship by using vaccines, wildlife control to reduce the intrusion of new pathogens agents, new therapies, risk analysis and animal microbiome analysis showed advantageous. The manure and wastewater treatment showed beneficials in the reducing of environmental contamination. Additionally, these measures have been more recently complemented with new legislation, for example prohibiting all forms of routine and prophylactic farm antibiotic use and banning the importation of all animal food produced with antimicrobial growth promoters as implemented by the European Union. In European animals, antibiotic use has declined 34% between 2011 and 2018, although 99% of the total sales for veterinary antimicrobial agents were used for livestock production [1, 2]. **Conclusions:** To mitigate antimicrobial resistance and conserve the effectiveness of antibiotics, is necessary monitoring antimicrobial use and expand these measures to all countries with animal production, in order to safeguard food safety and animal, environmental and human health.

Keywords: antibiotic resistance; livestock; mitigating; animals

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