

cure bacterial infections (Reardon 2014), principally to treat that resistant superbugs.

The global main consequences are the increasing healthcare costs, prolonged hospital stays with a high probability of acquire nosocomial infections, treatment failures, and a significant number of deaths associated with increased suffering.

In addition, AMR has also huge economic implications in the EU, estimated to cause an economic loss of more than €1.5 billion each year (Jones-Dias et al. 2016), and a huge social impact. It is expected that 400 000 people will die because of MDR over the next 35 years (WHO 2016).

Coordinated actions are required in order to reduce the spread of AMR. There are some procedures to minimize this problem:

- Decrease the unnecessary antibiotic treatments and minimize overprescription Marinho et al. (2016).
- Use antibacterial drugs only for bacterial infections (Cantas et al. 2013).
- Do correctly the prescription and therapy of the antibiotic defined by the doctor (Michael et al. 2014).
- Implement effective containment of infections (Cristina et al. 2016).
- Make a prudent use or avoid these drugs in prophylaxis in agriculture and animal production (Frye and Jackson 2013; Shaikh et al. 2015).
- Change the public perception about common campaign related to the idea that humans need to be completely and permanently “clean” at a microscopic level (Tang et al. 2016).

## 11.7 Concluding Remarks and Future Perspectives

Due to antibiotic overuse, over prescription, non-prescription purchase, hoarding, commercial pressures, agriculture applications, and the failure of control measures to prevent the spread of resistant bacteria, MDR bacteria producing ESBLs and CREs are increasing problems in human and veterinary medicine. Furthermore, new resistance mechanisms are emerging and new developed antimicrobials are required.

This will lead to high economic and social costs, alongside increasing human suffering; thus worldwide coordinated actions must be implemented to minimize transmission between human and animals and reduce the spread and negative clinical effects.

These actions should be implemented at a global scale, and intense campaigns for the correct use of antibiotics should be done, in order to change the global perception of antimicrobial usage among common people, doctors, pharmaceuticals, farmers, etc. The task is huge, and not easy to resolve, but it is too important to not take it seriously.