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DG(SANTE)/2017-6247

ECDC, LUXEMBOURG, COUNTRY VISIT AMR. STOCKHOLM: ECDC; 2017

**JOINT EXECUTIVE SUMMARY
IN RESPECT OF A ONE HEALTH COUNTRY VISIT
TO LUXEMBOURG
FROM 29 MAY 2017 TO 02 JUNE 2017
TO DISCUSS POLICIES RELATING TO ANTIMICROBIAL RESISTANCE**

NB: THIS IS AN EXECUTIVE SUMMARY OF PART OF THE ORIGINAL COUNTRY VISIT REPORTS – REF. DG(SANTE)/2017-6247, AND ECDC, LUXEMBOURG, COUNTRY VISIT AMR. STOCKHOLM: ECDC; 2017.

<https://ecdc.europa.eu/en/publications-data/ecdc-country-visit-luxembourg-discuss-antimicrobial-resistance-issues>

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EXECUTIVE SUMMARY

The European Centre for Disease Prevention and Control (ECDC) and the European Commission (Directorate-General for Health and Food Safety - Directorate for Health and Food Audits and Analysis) visited Luxembourg from 29 May to 2 June 2017. This joint visit was requested by the Luxembourg authorities to support the development of a national action plan against antimicrobial resistance (AMR) in a One Health perspective.

The Commission's European One Health Action Plan against AMR¹ describes One Health as a principle which recognises that human and animal health are interconnected, that diseases are transmitted from humans to animals and vice versa and must therefore be tackled in both. The One Health approach also encompasses the environment, another link between humans and animals and likewise a potential source of new resistant microorganisms.

During the visit, the competent authorities, stakeholders and the visit teams (including accompanying experts from other Member States) discussed the work currently under way in Luxembourg to give effect to a One Health approach in addressing AMR and shared examples of good practices implemented by other Member States in this area.

Concerning the One Health approach, the reports from ECDC and the Commission conclude as follows:

- Extensive work is under way to develop, in a One Health approach, a national action plan against AMR. Although many relevant stakeholders have already been involved in this work, there is scope to extend the representation to some other important stakeholders who will be involved in the implementation of the Action Plan's ultimate objectives (e.g. national farmers' organisations and the Ministry of Family Affairs responsible for nursing homes/long-term care facilities).
- There is a need to establish a permanent national committee or Inter-sectoral Coordinating Mechanism (ICM) to facilitate the implementation of national measures to address AMR in a One Health perspective.
- Whilst AMR surveillance data are available for humans, food-producing animals and food, these are not currently reviewed, assessed and reported jointly by the responsible human health and veterinary competent authorities in a holistic and coordinated manner. In order to facilitate a more One Health perspective on available AMR surveillance data, there have been discussions between the National Health Laboratory and National Veterinary Laboratory on the possible creation by the end of 2017 of a database of antibiogram results.
- Data are available from pharmaceutical wholesalers concerning the occasional supply of human-authorized antimicrobials to veterinarians for use in animals, although the veterinary competent authorities have not previously requested the wholesalers to provide these data.

¹ <http://www.consilium.europa.eu/en/press/press-releases/2016/06/17-epsco-conclusions-antimicrobial-resistance/>

- Several communication and awareness activities have taken place in the human health sector to raise awareness of AMR and the prudent use of antimicrobials. Few corresponding communication or awareness activities have taken place concerning the use of antimicrobials and AMR in animals, limiting the implementation of a One Health approach in practice.

Concerning human health aspects, the ECDC report concludes that antibiotic consumption in Luxembourg is at the EU average in hospitals, but higher than the EU average in the community. There has been a 30% decrease in antibiotic prescriptions in children between 2006 and 2015. The AMR levels in bacterial isolates from humans are at or below the EU average. However, looking at the increasing trends of multidrug-resistant *Escherichia coli* from the European Antimicrobial Resistance Surveillance Network (EARS-Net), there is a concern for more serious AMR problems in the future, especially considering the increasing use of last-line antibiotics such as carbapenems as well as the slow emergence of carbapenemase-producing *Enterobacteriaceae* in Luxembourg. There are multiple sources of data on AMR and on antimicrobial consumption at national and local level in hospitals that currently are not consistently used by national and local experts for further analysis, and to implement and evaluate targeted interventions to prevent and control AMR. Cross-border issues seem to have a greater importance in Luxembourg than in many other EU Member States, considering that patients are transferred across border from Luxembourg to other countries and back to Luxembourg, that a large proportion of the population has connections with other countries and travels back and forth between Luxembourg and their country of origin, and that medical doctors and other healthcare professionals usually train in neighbouring countries where they may be taught varied clinical and prescribing practices. Long-term care facilities may also represent an uncontrolled reservoir of multidrug-resistant bacteria. It was concluded that Luxembourg is in a position to reverse the above-mentioned emerging AMR trends. In the past years, Luxembourg has implemented several good actions at national or local level, often driven by the personal initiative and efforts of a few dedicated professionals. This can be seen as the first phase of a process, which now needs official status, national coordination, enhanced collaboration, and support to ensure sustainability and meet future challenges.

The ECDC report includes the following recommendations:

- Completion of the National Antibiotic Plan 2018-2020, in a One Health perspective in collaboration with the Veterinary Administration and establishing a permanent National Committee or Intersectoral Coordinating Mechanism (ICM) and a clearly defined role of the "Groupe National de Guidance et de Prévention de l'Infection Nosocomiale" as part of this ICM.
- Strengthening and centralisation of surveillance and response to AMR by creating a national epidemiologic team.
- Defining a list of a minimal set of indicators for antimicrobial consumption, AMR, healthcare-associated infections and compliance to hand hygiene and identify proper

benchmarks. For some indicators it would be possible to set targets (e.g. antibiotic use in the community).

- Increasing the efforts into defining the epidemiology of carbapenemase-producing *Enterobacteriaceae* in Luxembourg and use of this information for the implementation of control measures.
- Review and taking advantage of the multiple current sources of electronic data and implementation of the electronic patient record.
- Establishing national surveillance of surgical site infections.
- Review, update and dissemination of the national guidelines for prevention and control of multidrug-resistant organisms.
- Providing national guidelines for treatment of common clinical infections and for surgical prophylaxis by developing (or updating existing) Luxembourg-specific guidelines or adapting guidelines from other countries and defining steps for their implementation.
- Coordination of regional/local initiatives and provision of a forum for exchange of best practices, experiences and materials, including guidance documents and software tools.
- Provision of education on AMR and antibiotic prescribing for medical doctors, for example by including them into a mandatory continuing professional education programme.
- Continuation of the national public awareness campaign on the prudent use of antibiotics, targeting not only the general public but also expanding and reaching other target audiences such as medical doctors, nurses and other hospital staff who have responsibility regarding antimicrobial treatment and pharmacists.
- Continuation of the national campaign on hand hygiene, ensuring that the campaigns about prudent use of antibiotics and hand hygiene are in line and support each other.
- Implementation of education materials from e-Bug ² in schools in Luxembourg.
- Increasing the availability of infectious disease expertise in all hospitals.
- Involving long-term care facilities in the surveillance and control efforts for AMR.
- Enhancing cross-border collaboration on the prevention and control of AMR.

Concerning veterinary aspects, the report of the Commission concludes that limited activities have been undertaken to date to raise awareness on AMR. Although available data suggest that the use of antimicrobials in animals is relatively low, this is likely to under-estimate total use given that antimicrobials supplied to farmers by veterinarians based in neighbouring Member States are not included in these data. Few actions have been undertaken to promote the reduced and more prudent use of antimicrobials in animals and scrutinise more closely the use of

² <http://www.e-bug.eu/>

critically important antimicrobials. Limited AMR surveillance data are currently available to the competent authorities and, in particular, none for companion animals. In the context of future planned initiatives and expected finalisation of the national action plan on AMR by the end of 2017.

The Commission the report outlines the following considerations for possible future actions:

- Collecting more complete data on the use of antimicrobials in animals (preferably at farm level via a database).
- Collecting more complete AMR surveillance data for animals, including results of antibiograms performed in foreign laboratories on samples taken in Luxembourg.
- Raising awareness of AMR and the prudent use of antibiotics among veterinarians, farmers and other stakeholders.
- Promoting the application of prudent use guidelines by veterinarians.
- Promoting measures which could reduce the need for antimicrobial use in animals, for instance vaccination, biosecurity, and improved animal husbandry.
- Taking measures (whether voluntary or compulsory) to reduce the use of critically important antimicrobials in animals
- Adapting the annual epidemio-surveillance visits by veterinarians to farms to include a point on actions taken to reduce or ensure the more prudent use of antimicrobials.
- Strengthening resources for controls on farmers and veterinarians concerning the use of antimicrobials.
- Engaging with all relevant stakeholders on AMR and prudent use of antibiotics, including by appropriate representation of stakeholders in action plan technical working groups.

Concerning environmental aspects, it was confirmed that Luxembourg is carrying out, amongst others, monitoring for macrolides in water under Commission Implementing Decision (EU) 2015/495 establishing a watch list of substances for Union-wide monitoring in the field of water policy pursuant to Directive 2008/105/EC of the European Parliament and of the Council. Member States, including Luxembourg, have submitted to the Commission's Directorate-General for Environment the results of such monitoring conducted in 2016, and at the time of the country visit these results were under analysis by the Commission's Joint Research Centre. The competent authorities stated that there are currently no other particular activities under way to address environmental aspects of AMR, taking into account the small size of the country and associated research community, limited resources available and considerable existing knowledge gaps concerning how to effectively address such environmental aspects.