Joint Action
Antimicrobial Resistance and
Healthcare-Associated Infections

Minutes of the General Assembly meeting
16 September 2019, Istituto Superiore di Sanità, Rome-Italy.

The EU-JAMRAI General Assembly meeting was organized on September 16th, 2019 at the Istituto Superiore di Sanità in Italy. Around 134 participants, including health policymakers, EU-JAMRAI Chafea/DG Sante officers, EU-JAMRAI partners, the advisory committee (AC) and stakeholders (SH), attended the annual event. Participants were from 18 EU Member States (Austria, Belgium, Croatia, Czech Republic, Denmark, France, Germany, Greece, Italy, Latvia, Lithuania, Luxemburg, Netherlands, Poland, Portugal, Slovenia, Spain, Sweden) plus Norway and United Kingdom.

Marie-Cécile Ploy, EU-JAMRAI coordinator, welcomed and thanked the participants for their involvement and commitment in this fight against AMR and HCAIs. She underlined that AMR is still high in the political agenda in national and EU levels and that this JA is the unique place where all key players can discuss and propose solutions. She reminded the encouraging words of the president of the European Commission, Ursula von der Leyen, who stated in her mission letter that AMR is a high priority and that European cooperation in this field will continue. Thereafter, she introduced the 2 days program focused on results and main concrete actions of the EU-JAMRAI after 2 years, and on sustainability.

The keynote speech was given by **Silvio Brusaferro, president of ISS.** He presented the history of the institute, missions and attention brought to AMR. He described the Italian national action plan, and particularly the "One Health" approach. He presented the contribution of ISS to the EU-JAMRAI attesting: "We are committed to public health for the benefit of all".

The GA meeting consisted in 3 main sessions focused on the overarching objectives of the EU-JAMRAI. Work packages' leaders, involved partners and stakeholders presented the work progress giving all partners, AC members, international organisations and SH members the opportunity to examine EU-JAMRAI results and to discuss the challenges still ahead.

Co-funded by the
Health Programme
of the European Union

The first session was focused on "Strengthening national and European response on AMR" and chaired by Antonio Lopez (AEMPS, Spain)

Antonio Lopez (AEMPS, Spain) introduced the session emphasizing that AMR is not a problem that countries can fight individually as resistant bacteria cross borders all the time. He stressed the urge to work together with partners from the veterinary, human, food and environmental sectors; on each level, from experts to politicians, from civil society to government, within countries and outside the borders. He reported the economic impact of AMR according to the OECD report.

Several opportunities were identified: (1) EU-JAMRAI is a multi-partnered project, (2) Best practices can be exchanged on practical and policy level through the country-to-country visits and workshops, and (3) Surveillance systems can be improved. However, several barriers remain: (1) Other political priorities, (2) One Health approach neglected, (3) Insufficient use of surveillance data and (4) many various actors and inspectorate bodies involved.

- **Peer reviews can transform Europe.**

Desiree Da Jong (VWS, Netherlands) presented the 6 steps to strengthen the "One Health" response: (1) Mapping of NAPs, (2) Self-assessment tools developed to monitor the country progress and identify gaps, (3) Self-assessment performance where EU Member States self-assessed the implementation of their NAPs and conducted SWOT analysis, (4) country-to-country peer review system, (5) Country-to-Country visits (c-c-v), and (6) Supervisory Bodies Network to discuss supervision, inspection and law enforcement in EU MS.

Ten pilot country-to-country peer review visits with "One health" delegations sharing best practices and discussing future policy options had taken place to date. They were an opportunity for transformation thanks to practical and informal exchange, through give-and-take of best practices, suggestion of new solutions, networking and total transparency. Desiree detailed the process of these visits and the highlights of the preliminary analysis. She highlighted the challenge to have representatives from the environment sector; the need to have a preliminary presentation of the health system of each visited country; and the convenience of selecting topics of interest to both countries.

The lessons learnt from the experiences of the following visits NL to ES, SE to SI and GR to RO were presented. Concrete examples of best practices exchange were presented. For example, the AEMPS team presented some of the recommendations suggested by the Dutch team that were implemented and included in their NAP after internal discussion and approval from the Spanish ministry of Health.

The teams have achieved a very cooperative and friendly relationship by sharing their concern for antibiotic resistance threat and exchanging their experience. They have identified gaps and opportunities to work on how to improve their NAPs.

The outcomes of the country-to-country visits will be presented at the end of JAMRAI.

- **Promoting the "One Health" approach.**

Desiree Da Jong (VWS, Netherlands) explained how the country-to-country visits contributed to promote the One Health approach: sharing best experiences, making them sustainable, allowing the organization of regular workshops and leading to presentations for the CHAFEA and the role of the inspectorate bodies.

Christine Ardal (FHI, Norway) explained that the research and innovation team designed its own country visits to discuss about country appetite for incentives. They plan to visit 11 countries. Christine highlighted the importance of face to face informal meetings to design better One Health National policies to tackle AMR. She gave a concrete example of how the country visits have helped to discard potential financing mechanism for incentives. . Several reports have called for a tax on veterinary antibiotic usage to finance AMR related innovation. However, through the country visits, it appears that farmers were facing their own difficulties and that tax would probably be too burdensome for them.

Angela Monasor (AEMPS, Spain) reported the communication activities to promote the "One Health" approach. After the first raising awareness video campaign that reached through social media channels 2.7 million people in just one month, the "One Health butterfly effect" social media campaign has been developed based on the following philosophy: small individual changes can have large collective effects. Everybody can flap their wings to create a "One Health Butterfly Effect".

In addition, a European webinar for journalists was organized on 26 March 2019 in order to provide clear and accurate scientific information about AMR and HCAI to journalists from across Europe so they can correctly inform the audience about these major health threats. This webinar was also the opportunity to create a database and network of journalists and international media agencies at EU level. It was followed by more than 90 organisations and media, from 33 countries.

EU-JAMRAI will launch, during the celebration of the next European Antibiotic Awareness Day in Stockholm, a design contest to find the symbol that best represents the global threat of antibiotic resistance. This contest is not about creating another logo. EU-JAMRAI is looking for something tangible that anyone can make at home and everyone, anywhere can wear; like the AIDS ribbon. The objective of this symbol is to raise awareness among the public about the specificity of antimicrobial treatments and encourage prudent use at all levels from patients to professionals.

- **Building a project of sustainability tailored to the priorities of each Member State**

Céline Pulcini (MoH, France) presented the priority actions to tackle AMR and to control HCAIs; She introduced the survey for "*prioritization of action to prevent and control AMR and HCAI*" launched with the AC members and SH. It was reported that a vast majority of the participating countries have a NAP on AMR, following a One Health approach and including actions or strategies on HCAI, but 37% do not have a dedicated website on AMR and 16% do not have a cross-sectoral AMR steering committee at national level, thus there is room for improvement.

The SWOT analysis was detailed. The high priority measures identified by the responders were: infection prevention and control, surveillance, antibiotic stewardship, research & development,

and communication & awareness. Other comments were: i) keeping AMR high on the political agenda is crucial to sustain the fruitful cooperation in the fight against AMR in EU, (ii) an organisation may take the lead on this fight after the end of the JA by implementing some of its outcomes.

Based on the Knoster Model, resources and skills are the most urgent items to focus on for a sustainable change.

The second session was focused on "Infection Prevention and Control (IPC): How could we fill the gaps on implementation, research and communication?" and chaired by Christine Ardal (FHI, Norway)

C. Ardal introduced the session and gave an overview on IPC and the relation between IPC and AMR. IPC decreases the risk for patients to be infected/colonized by a multi-drug resistant organisms (MDRO) and consequently limits the spread of these pathogens in hospital environment. IPC is essential especially in wards with high AMR rates like ICUs or haematological units. If we can reduce HCAIs, we can also reduce the amount of MDRO and infection within EU. She also showed the burden of infections due to MDROs in Europe that would be reduced.

Barriers (lack of awareness, knowledge, commitment & resources...) and opportunities (behavioural changes, training & communication, priorities & managements...) resulting from the surveys were presented during the session.

An interactive **IPC Quiz** was organized by the communication team to assess the knowledge of the participants on IPC and to stress and raise awareness on this important issue.

- **Identifying & filling the gaps of an ineffective transformation process**
    - ***Identifying the gaps in implementation***

Flora Kontopidou (NOPH, Greece) presented the results from two surveys conducted in the JA:

- Survey A: for the key components of ICP based on the ECDC and WHO guidelines and the requirements of the updated EU Action Plan for AMR regarding the hospital sector; with the objective to identify the gaps between policy and Infection Control in clinical practice.

- Survey B: related to barriers for an effective ICP implementation, linked to institutional policy & organizational behaviour, to identify the gaps between organization culture and patient safety.

Large participation with more than 2650 responders, from 8 countries (mostly from southern EU). These surveys highlighted essential insight into the clinical reality of hospitals regarding ICP implementation. The results allowed to design of Universal Infection Control Framework gathering a set of practices and tools to support and improve the already implemented ICP activities by strengthening organizational culture. It has currently tested in 5 countries (AU, ES, IT, GR, PT).

Lotta Edman (FOHM, Sweden) presented the implementation model (Breakthrough Series) which is being tested in several pilot hospitals (in EU countries: BE, CZ, EE, LT, LV, NL, SE, SI – in non-EU countries: GE, MD, UA) to improve Catheter Associated Urinary Tract Infections management.

- ***Identifying the gaps in research***

Yohann Lacotte (Inserm, France) explained how the JA has contributed to the identification of research gaps in Europe. The JA has compared the research priorities of 7 partner countries with the various European research agendas (JPIAMR, IMI, EJP One Health). This mapping exercise revealed that research on IPC was still neglected in most countries.. To fill this gap, EU-JAMRAI has developed a research agenda for HCAI and ICP through a literature review and validated it with the help of IPC experts. Yohann presented few of the most urging IPC research needs including (i) the need for behavioural studies assessing barriers and facilitators for IPC measures implementation and (ii) the need for studies assessing the impact of overcrowding on the spread of HCAI and AMR in the clinical setting.

- ***Identifying the gaps in communication***

Dominique Monnet (ECDC) presented the objectives of the survey that aims to gain a better understanding of "healthcare workers' knowledge and attitudes about antibiotics and antibiotic resistance" to provide a base to support future needs in terms of policy and education changes; to fill in gaps in terms of evaluation of communication campaigns targeting healthcare workers.

More than 18000 responses received from 29 EU/EEA countries. The report will be published next November 2019 and the results showed:

- more than 50% respondents learned about the survey from a professional or a local organization, and less of 10% from social media;
- 24 (80%) countries met or exceeded their quota sample size for respondents
- The quota sample size was also reached for physicians, nurses/nursing, professionals/midwives, pharmacists, overall for the EU/EEA and in many individual countries
- Stratification of results by setting (hospital vs. community, prescribers vs. non-prescribers, profession, country).

- **What's next?**

C. Pulcini presented the JA sustainability plan that will be developed based on two major actions:

- Integration: uptake of the JA outputs at MS' level (national, local, regional) into, for example, national policies, national actions/programmes, by different actors (government, professionals…)

- Sustainability: strategy defining which EU-JAMRAI elements/deliverables/results will be further developed, consolidated or run and by which organisation this will/should be done.

"*The sustainability is everyone's business*": This is the **take home message** for (i) partners to keep integration and sustainability in mind for all actions they are working on; (ii) AC members to implement the JA output within their national policies; and (iii) SH to contact team leaders if they want to participate.

The 3rd and last session was dedicated to "Antibiotic stewardship and surveillance" and chaired by Céline Pulcini (French MoH, France)

C. Pulcini introduced the session pointing out that the major barriers for stewardship identified in the performed surveys by EU-JAMRAI are the lack of resources and political support, but that these barriers are also found in other fields related to AMR & HCAIs. She reiterated the lack of discussion between human & animal worlds and the common issues and barriers between IPC and antimicrobial stewardship. So, most of the gaps can be addressed based on what will be produced within the JA and on the integration and sustainability plan following the One Health perspective.

- **Guidelines repository: translation into useful information for policy makers**

Oliver Kacelnik (FHI, Norway) presented some of the results on understanding the success factors and barriers for the implementation of antibiotic stewardship programme in different EU countries specially focusing on different levels of health care.

He used a Scandinavian schematic to show in easy steps the results from a survey and a workshop conducted during the first year of the JA. He reported that having a good leadership, the right infrastructure, public awareness, inclusion of NAPs and the right policies are important tools for good implementation. However, he assessed that it is impossible to do it alone. It is clear that different factors including cultural ones influence prescribing practice: difference between MSs, different definitions of primary care, different use of long-term facilities and different rules for which professional are allowed to prescribe antibiotics.

In summary, it is possible to build a successful stewardship programme in several easy steps that could be conducted in different countries but there are many general factors and aspects of behavioural change need to be considered.

Paloma Crespo Robledo (AEMPS, Spain) presented the results of a survey developed to map the interpretation of stewardship definition in animal health. It aims to collect the views of associations, vets, farmers and professionals related to animal health on how guidelines and other tools have been effective to decrease antimicrobial use and improve the prudent use in animals, and to find gaps or room for improvement.

The veterinary practitioner sector had the higher rate of responses whereas both, food and pharmaceutical industries were the sectors with fewer responses. The results showed that the three most useful tools to reduce ATB consumption in animals are to have: (1) Guidelines and/or recommendation, (2) A clear action plan, and (3) Good biosecurity and hygiene measures. However, the three most needed tools are: (1) Good practice guidelines, (2) On-going education of professionals is a fundamental area that must be strengthened, and (3) specific prescription guidelines by disease and species are essential tools to be developed.

Mari Molvik (FHI, Norway) talked about the qualitative study for the successful implementation of antibiotic stewardship in human in 10 EU countries and their plan. The objectives are (1) Identification of the most appropriate "core elements" in AMS programs, (2) Identification of enablers and barriers to stewardship implementation. The results will be published in country

reports for local use and a final EU report with recommendations on the appropriateness of different core elements. Then they will champion the re-use of success stories around Europe.

P. Crespo Robledo reported the preliminary results of a survey designed to agree on a common definition of stewardship in animal health. The target is to identify the needed core-components that can be used by MSs when planning their own stewardship programs. The final task will be a publication of recommendations based on the evaluation of barriers, appropriateness of core-components, methodologies & level of implementation of stewardship programs in the vet. field.

The questionnaire is still open. 157 responses were collected at the moment of the GA. P. Crespo reported some preliminary results showing that the understanding of AMS as defined in the EU guidelines is clearer.

- **Real time surveillance in human health**

Germán Peñalva (SAS, Spain) gave an overview on surveillance system for human health in EU and internationally including the Global antimicrobial resistance surveillance system (GLASS), European Surveillance of Antimicrobial Consumption Network (ESAC-Net), European Antimicrobial Resistance Surveillance Network (EARS-Net), Joint inter-agency antimicrobial consumption and resistance analysis (JIACRA)…

He detailed the PIRASOA programme of the Andalusian health service that is integrated in the Spanish NAP and presented at the parliament, with the aim to reduce the incidence of HCAIs and optimize the use of ATB in hospitals and primary care. It is reported that training is the key intervention of PIRASOA. The feedback was provided to every centre by quarterly reports. In addition, educational interviews are the main activity of the ASP and almost 80,000 interviews had been conducted. PIRASOA contains 171 indicators about antimicrobial use, resistance, nosocomial infections and clinical outcome.

G. Peñalva outlined thereafter the JA quarterly surveillance system. The objectives are to (1) Develop a simple surveillance system for antibiotic use and resistance for a shorter time-lag, (2) Select basic indicators for surveillance of antibiotic consumption (AMC), (3) Select basic indicators for surveillance of AMR, and (4) Reinforce participants surveillance systems to provide data on a quarterly basis from hospitals and/or primary care at regional or national scope.

Regarding the pilot testing, indicators for surveillance of AMC and AMR were selected. Moreover, guidelines, database and website had been developed and disseminated. 20 institutions enrolled with 15 institutions participating from 10 countries.

- **Developing AMR surveillance in diseased animals in the EU**

Rodolphe Mader (Anses, France) presented how the development of AMR surveillance in diseased animals in EU could make a difference in the fight against AMR and improve surveillance in EU.

He reported the huge opportunity for the JA to help coordinating national surveillance systems: All systems in EU are fragmented and they are looking to learn from each other's for improvement.

EU JAMRAI is currently stimulating actions by networking with all of them. In addition, EU-JAMRAI is an opportunity for various actors within a country to meet for the first time.

He presented the building of EARS-Vet strategy. It is close to the model of EARS-Net and is taking the One Health approach when relevant. It has an inclusive approach allowing to draw collaborations with all EU countries and relevant institutions. It also looks for the integration of existing surveillance networks for AMR. EARS-Vet is looking for something pragmatic, impactful and feasible. For this, it uses a bottom-up approach: the EARS-Vet is designed according to national surveillance systems. The main challenge is harmonization. At the end, an EARS-Vet manual will be produced to guide countries in the setting of their national surveillance system.

Rodolphe Mader presented the learning from existing national surveillance systems eg. OASIS evaluation of the French surveillance system (Résapath). In total, 25 countries are planned to be visited with the following objectives: (1) Production of a SWOT analysis of their surveillance system, (2) Discussion about EARS-Vet: collecting feedbacks and identifying challenges for participating and (3) Mapping of available materials and skills for performing molecular analyses.

He underlined the importance to think about the sustainability of the EARS-Vet and the need of both financial and political support.

- **Influencing policy with evidence**

Maja Subelj and Polonca Truden Dobrin (NIJZ, Slovenia) presented a Slovenian case study on how evidence-based practices have helped reducing antibiotic consumption in long-term care facilities and how the WHO EVIPNet (Evidence-informed Policy Network) has help them implementing evidence based practices.

EVIPNet Europe has helped Slovenia (i) to promote evidence informed policies development; (ii) to prepare an evidence policy brief (EBP) to introduce or implement AMS strategies in long term facilities and (iii) to propose options to improve AMR in long term facilities. Several facilitators were identified: the multi-level/sectorial approach, the incorporation of local evidence and the engagement of stakeholders. She concluded that the MoH has played a crucial role in reaching the political agenda and underlined the responsibilities of the decision-makers to implement the EBP's outcomes and ensure sustainability.

Each session was followed by an **"open discussion"** sharing perspectives and views on issues highlighted in the presentations and exchanging experiences from some countries.

There was an interesting discussion about the use and implementation of recommendations resulting from the country-to-country visits: our feedback will be proposed at EU level and these visits could be expanded outside EU in line with G20.

Another debated issue was about IPC, their implementation in practice and the importance of training and awareness of professionals to bridge the gap and change behaviours. It was as well stressed the need to invest in human resources and get more funds.

Several exchanges took place on the awareness of patients about HCAI, on standards and indicators for IPC, and on the need to work together in a consistent way to ensure the link between IPC, sepsis and stewardship.

In the last debate, many interesting discussions were devoted to the EARS-VET network (process, harmonization, position of industry...) and the "One health" approach where the environmental aspect is still neglected and related difficulties/risks in its integration in surveillance.

Several exchanges focused on the Slovenian case study and the EVIPNET work. It was emphasized that policy brief reports are undoubtedly useful tools to increase political awareness on health issues and to boost inter-sectoral collaboration.

Closing

C. Pulcini acknowledged the work ensured by all partners. She concluded by emphasizing that the main JA's objective is reached through the collaboration and share of best practices, that "*we finally bridge the gap between policy making and professional world*". The key messages were (1) We are focusing on achieving concrete actions with the help of the AC and SH's members, (2) Keep AMR high in the agenda and (3) the butterfly effect. That is what EU-JAMRAI community is doing: amplifying & achieving a small thing that will have a big impact!

All presentations are available on the EU-JAMRAI website:

https://eu-jamrai.eu/eu-jamrai-second-annual-meeting/

Photos are available on the EU-JAMRAI Flickr:

https://www.flickr.com/photos/eujamrai/