



World Alliance for Patient Safety

Third Global Challenge – Antimicrobial Resistance

Core Group meeting, Salle G, World Health Organization, Geneva

20-21st November 2008

1. Introduction

1. Pauline Philip, Executive Secretary, World Alliance for Patient Safety, opened the meeting thanking all for attending. The purpose and structure of the meeting were described and Ms Philip stressed the importance of the core group working closely together to guide the project and help make the challenge a reality.

2. Didier Pittet, co-Lead, Third Global Patient Safety Challenge described the purpose of the core group and its functioning using examples from the 1st challenge. The role includes preparing and testing guidelines and raising awareness of the Challenge. Dr Pittet discussed the importance of openness within the group to challenge and criticise each other, working together, sharing experiences to achieve common vision.

2.1 There followed a general discussion on the functionality of the core group including the importance of expanding the group to represent WHO Regions and the flexibility of membership. The membership of the core group is not fixed and may change as the Challenge goes on.

3. David Heymann, Asst Director General-Health Security and the Environment, Lead for 3rd Challenge, started by acknowledging the work members of the core group have already done in the field of antimicrobial resistance (AMR) and the work of certain members in pushing the AMR agenda back to the fore. Dr Heymann called AMR a “patchwork” of issues and described these issues by examples from his own career.

4. Gerald Dziekan, Programme manager, 3rd Challenge, gave a further overview of the objectives of the meeting.

4.1 There are two end deliverables: the first is the development of a World Health Organization global agenda on AMR that cuts across all issues. The second is a specific intervention to make the Challenge. The importance of a ‘SMART’ Challenge was highlighted.

4.2 The meeting should discuss chapter outlines, process and timelines for the Agenda and to shortlist and discuss timeline for the Challenge.

4.3 There followed a general discussion. The 2001 strategy was raised and it was stressed that the current work was to build on the previous work

and to take it forward. It was agreed that the larger document should be a Work Plan with specific intervention and implementation strategies. There was also a discussion of antibiotic versus antimicrobial resistance. It was decided to leave this decision until the end of the meeting when the core group had a clearer view of the contents of the document.

5. Gerald Dziekan and Felix Greaves, Secretariat, 3rd Challenge, gave a summary of the previous meetings and an overview of current AMR work.

6. Christophe Fraser, of Imperial College London, gave a presentation on the work to estimate the global burden of AMR. He indicated that rather than calculating a single global burden figure, it may be both more practical and more useful to work in terms of case-studies. Potential case studies examples were:

- a) Hospital Acquired Infections
- b) UTI in pregnancy
- c) Relative cost of treating MDR-TB
- d) Pneumococcus in developing countries
- e) MRSA rates in the USA and Europe

Methods to be used would include literature review, metanalysis, workshops building on existing networks, and mathematical modelling.

6.1 The use of this work to gain inertia in the initial awareness raising and for gaining Ministerial support for the programme was stressed by Ms Philip

7. Topic area 1: Surveillance

7.1 Hajo Grundmann discussed the importance of surveillance in informing the global agenda. This includes the need to not only measure AMR and the burden of disease, but to also estimate antimicrobial usage as a primary driver of resistance. The information should allow us to make comparisons, predict and monitor effects of interventions. There are two phases – Phase 1: literature review, estimation and mapping to illustrate AMR, to show variation by region and produce a gap analysis – Phase 2: utilizes existing networks to validate previous work and extend knowledge/close gaps.

7.2 John Stelling described the objectives of surveillance to inform decision making, early detection and response, research and advocacy with benefits for lab capacity and infrastructure. Strategies that could be used include alert surveillance, enhanced routine surveillance and targeted surveillance.

7.3 A general discussion followed. The quality and validity of data was discussed with concerns over some surveillance data however it was felt that the data, even if not of the best quality, fulfils a public health need and that the act of increasing surveillance in these ways will result in a stepwise increase in the quality of the data. It was also felt that the availability of data both on resistance rates and consumption rates was vital in persuading clinicians to change prescribing behaviours. The importance of using existing surveillance networks, such as ESAC, EARSS and GASP and accessing data from drug companies and NGOs was considered. The need for capacity building to strengthen existing in-country surveillance capability was reinforced, as was the need to focus effort on quality assurance systems. Potential collaborations

with other innovative research projects such as the INDEPTH programme were suggested.

8. Topic Area II: Rational Drug Use

8.1 Otto Cars gave a presentation on the rational use of drugs, indicating that the current burden of AMR is underestimated and that the causes of AMR are multi-factorial. In the short term important actions include infection control, revision of the essential drugs list and actions to prolong the life of existing drugs – revisit old drugs, promote rapid diagnostics, limit access to special drug classes – and in the long term drive an R&D agenda for new drugs. There are many opportunities for campaigns targeting governments, prescribers, regulators and consumers. The usefulness of making antibiotic drugs a special (controlled) class of drug was raised as a potential challenge topic.

8.2 Stuart Levy started by describing further some of the determinants of AMR and the importance of involving all stakeholders including industry. He restated the value of creating a separate drug class for antibiotics. He discussed two initial programmes – first raise awareness of the societal consequences of AMR and working with industry to extend life of current drugs and development of new drugs. Second a campaign to stop the use of antibiotics for viral infections. Dr Levy stressed the importance of antimicrobial stewardship.

8.3 Stephan Harbarth suggested a topic for the challenge in the area of antibiotic stewardship: to improve the use of perioperative prophylactic use of antibiotics. There is clear evidence that it is often inappropriate. Areas which could be tackled include indication for prophylaxis, choice and dosing, timing of antibiotic and the duration of course. The rational is that it is simple, cost saving, has a direct impact and there are ongoing initiatives in the area including the 2nd Challenge.

8.4 A general discussion followed. The difficulties of changing the regulatory status of antimicrobial drugs and of enforcement in many areas, especially in developing nations were discussed. The role of potential top down ‘regulatory’ approaches vs. bottom up ‘behavioural change’ was considered, and the need for both was appreciated. The success of campaigns in several European countries was noted, but also the need to adapt any campaign to local contexts was highlighted. The use of advancing technology including better linkage of lab tests to frontline use, and the use of internet based technologies such as Google search data and “viral” games and videos as campaigning tools was considered.

9. Topic Area III: Research and Development

9.1 Anthony So gave a presentation outlining possible contents for the chapter for research and development. He described the need to prioritize research into new technology and the possible synergies and tradeoffs from different priorities. He stressed the importance of identifying gaps in research and shortfalls in funding. The use of partnership between public sector and private industry to reduce opportunity costs and decrease barriers to entry which are easier to overcome for small bio-tech companies. Dr So described both push and pull mechanisms to encourage the development of new drugs and the problems associated with extending patents. Regarding reducing

licensing requirements, there is a balance to be found between speed of development and drug safety. It is also possible to create dual markets between not for profit and for profit companies with cross-subsidy.

9.2 There followed a general discussion which centred on the current mechanisms for harmonisation of drug registration and licensing and transnational regulation. The recent discussion in the EU to minimise the length of clinical trials was mentioned. The cross-cutting nature of this topic and its importance for other chapters was highlighted. Other issues raised include the research needs in specific areas, particularly around antibiotics active against gram negative organisms, where the drug pipeline is very limited. Other potential mechanisms considered include the development of a funding pool to act as 'pump prime' device for new drug development. The need to establish the correct balance between support for diagnostics, drugs, vaccines and others was also raised.

10. Topic Area IV: Animal Husbandry

10.1 Frank Aarestrup presented on animal husbandry. The discussion started with comments on the spread of AMR between community and hospitals, also stating the link to increasing levels of travel, tourism and trade on a global scale. The foci for AMR in animals include food products, abattoirs, food production, veterinary treatment of animals farmers, animal waste and the environment. It would be difficult to cover all areas. Most antibiotic use is in animals – for treatment, prophylaxis and in some regions as growth promoters. The main challenge is to stop the administration of antibiotics to healthy animals.

10.2 Awa Aidara Kane, WHO gave an update on current work being carried out by WHO and the Codex Alimentarius.

10.3 A general discussion followed. The importance of integrated human and animal surveillance systems was discussed. The concept of a network of high performing sentinel laboratories delivering data to a central hub was considered, and representative sentinel pathogens would need to be chosen. Potential challenge topics raised included a ban on the use of certain antibiotics in animals, particularly cephalosporins and quinolones. Public awareness raising in this field was thought to be a key concern, as public knowledge is currently low. The economic incentives of using antimicrobials in animals, or not was considered: the concept of an antibiotic price floor was noted, as was the prospect of cross subsidies between human and animal antibiotic costs.

11. Topic Area V: Infection Control

11.1 Petra Gastmeier gave a presentation on successful infection control measures to reduce resistance. The importance of education appropriate for both the public and healthcare workers in the community and in hospitals was raised and education as a separate chapter was suggested. The second area covered was of infection control measures and the importance of gaining the correct balance on the spectrum from hand hygiene to isolation, and should include when appropriate admission screening, alert systems, decolonization and environmental disinfection.

11.2 Wing Hong Seto described the need for antibiotic stewardship and infection control backed by appropriate surveillance and evaluation. The need

for well packaged “SMART” bundles of interventions was stressed. These bundles should include hand hygiene, monitoring of resistance, rapid identification, proper isolation, proper discharge arrangements, and mechanisms to deal with carriers and colonizers. It is important to use all interventions and not just pick a few.

11.3 A general discussion followed. Examples of implementation were discussed including the use of a “star” rating system to prioritise interventions. The concept of infection prevention intervention ‘bundles’ was discussed, including debate about the optimum size of bundles, and the need to tailor bundles to the context they would be applied in. The potential use of checklists in this field was discussed. The need to build capacity in developing countries was noted, as was the fact that infection control measures would save lives in a short time.

12 General Discussion on Chapters

12.1 Mrs Philip indicated that the rest of the meeting would concentrate on the Global Work Plan and that selection of the challenge would be deferred until a future meeting.

12.2 There was a long discussion on antimicrobial v antibiotic resistance. It was decided that the Work Plan would address AMR in general rather than through disease specific approaches, but particularly focusing on resistance to antibacterial drugs, which is similar in scope to the 2001 document. It was also felt important to include a mix of specialists in bacteria, viruses and parasites on the working groups.

12.3 There was a discussion of the suggested generic chapter outlines. Specific chapter outlines were produced in discussion with the participants.

12.4 The timeline for next steps was outlined with a meeting to be held in February/March 2009 to finalise chapters and discuss further options for the 3rd Challenge.

12.5 Members of the core group were asked to submit possible names for the working groups especially those from developing nations/representative of WHO regions. The working group membership to be confirmed over the following three weeks.