STATUS UPDATE OF AMR STRATEGY PROGRESS IN SOUTH AFRICA

JPIAMR Management Board

Ms P Matsoso, Director General
National Department of Health; South Africa
October 2017
Situational Analysis of the status of AMR in SA 2011

AMR Strategy Framework Approved in October 2014

WHA endorses Global Action Plan on AMR in May 2015

AMR Implementation plan Approved in June 2015
Governance as the key starting point

Impact: Rational Antimicrobial use and improved patient outcomes

Antimicrobial Resistance Governance

- Diagnostic stewardship
- Enhance Surveillance
- Antimicrobial Stewardship
- Prevention including IPC and vaccination

Health systems strengthening, research, education and communication
Governance Guidelines

A ‘blueprint’ for the health and veterinary workforce to enact antimicrobial stewardship at national, provincial and facility levels, specifically focusing on Governance and One Health

Guidelines on Implementation of the Antimicrobial Strategy in South Africa: One Health Approach & Governance

June 2017

MINISTERIAL ADVISORY COMMITTEE ON ANTIMICROBIAL RESISTANCE
NATIONAL DEPARTMENT OF HEALTH AFFORDABLE MEDICINES DIRECTORATE

health
Department of Health
REPUBLIC OF SOUTH AFRICA

Phila
National Surveillance System: AMR aspects

Public sector AMR data

Animal health AMR and residues data (in planning)

Private sector AMR data
National Surveillance System: antimicrobial use (AMU) aspects

- Animal health pharmaceutical suppliers data
- Human health pharmaceutical suppliers data
- Revenue services import data
- Central procurement data for public sector human health

AMU
Education and Training

- National Training Centers have been established (post graduate)
- Undergraduate curricula of various health care professionals are being reviewed currently
South Africa’s National Training Centres for Antimicrobial Stewardship
Colistin – One Health approach

A ban on colistin use in food-producing animals has been established.
<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Host Institution</th>
<th>Title of Project/Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warner, Digby F</td>
<td>UCT</td>
<td>A new look at an old disease: underexplored chemical space as a source of novel compounds active against multidrug-resistant M. tuberculosis</td>
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<tr>
<td>Chibale, Kelly</td>
<td>UCT</td>
<td>Developing the Next Generation of β-lactamase Inhibitors and Monobactam Antibiotics.</td>
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<tr>
<td>Schellack Natalie</td>
<td>SMU</td>
<td>Enhancing Appropriate Antimicrobial use via mHeaLth and other techniques in the Republic of South Africa (ENAABLES Project) - Application for part 3 in humans - New technology innovations to improve surveillance and use of antimicrobials</td>
</tr>
<tr>
<td>Karen I Barnes</td>
<td>UCT</td>
<td>Smart surveillance towards malaria elimination in Mpumalanga, South Africa: novel approaches for mapping antimalarial resistance</td>
</tr>
<tr>
<td>Keddy Karen</td>
<td>NICD</td>
<td>Using whole genome sequencing to develop Antimicrobial Microbial Resistance Reference Facility for One Health in South Africa</td>
</tr>
<tr>
<td>Simon Travel</td>
<td>UWC</td>
<td>Enabling low-cost TB drug resistance testing and surveillance through the implementation of an easy to use, cloud-based next generation sequencing analysis pipeline.</td>
</tr>
<tr>
<td>Wendy Stevens</td>
<td>WHC</td>
<td>Technology supported systems for rapid impact on TB control</td>
</tr>
</tbody>
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Antibiotic Stewardship Ward Rounds and a Dedicated Prescription Chart Reduce Antibiotic Consumption and Pharmacy Costs without Affecting Inpatient Mortality or Re-Admission Rates

Tom H. Botes1, Andrew Whiteside2, Colleen Bamford2, Michaila Moodley1, Kim Berencho2, Vicky Motala1, Nazneen Reenwood1, Vahshini Mathur1, Isaura Lusakho1, John Black1, David Black1, Mala Lexinsky1, Peter Kieserich2, Simon Dlamini1, Marc Ziemer2

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Stewardship examples

Groote Schuur Hospital Antibiotic Stewardship Programme
Antibiotic Prescription Chart

<table>
<thead>
<tr>
<th>Patient Label</th>
<th>Weight</th>
<th>Allergies</th>
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<tbody>
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</tbody>
</table>

Infection

- Pneumonia
- UTI
- Meningitis
- Septic infection

Source

- Sputum
- Blood
- Urine
- Indication
  - P = Prophylactic
  - E = Empirical
  - D = Definitive

SEND APPROPRIATE CULTURES BEFORE PRESCRIBING ANTIBIOTICS

<table>
<thead>
<tr>
<th>Culture</th>
<th>Send before antibiotic</th>
<th>Send after antibiotic</th>
<th>Antibiogram</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sputum</td>
<td>Blood</td>
<td>Urine</td>
</tr>
</tbody>
</table>
Sustained reduction in antibiotic consumption in a South African public sector hospital: Four-year outcomes from the Groote Schuur Hospital antibiotic stewardship programme

Fig. 2. Direct cost of antibiotics used on four medical wards over 5 years (2012 - 2015 and the control period 2011). Costs adjusted for inflation using SA CPI: December 2012 = 100.
Antimicrobial stewardship across 47 South African hospitals: an implementation study

Adrian J. Brink, Angeliki P. Mavrou, Charles Feldman, Guy A. Richards, Pieter J. Beukes, Debra A. Coff, Kari A. Bauer, Dilip Nathwani, Deren van den Berg, on behalf of the Natsanc Antimicrobial Stewardship Study Alliance.
Clinical Antibiotic Stewardship for South Africa

https://www.openlearning.com/courses/clinical-antibiotic-stewardship-for-south-Africa
Thank you

Ms Precious Matsoso
Director General
National Department of Health
South Africa

Dr Richard Gordon
Executive Director
South African Medical Research Council