IMA-AMR Challenges

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Indian Medical Association

• 29 States/Union Territories
• >1700 local branches
• About 300,000 doctors members, spread all over India
“Drug resistance follows the drug like a faithful shadow.”

- Paul Erhlich 1854-1915
AMR Issues : India

- India has a high burden of bacterial infections, an estimated 410,000 children aged under five years die from pneumonia in India annually,
- Around $12.9 \times 10^9$ units of antibiotics consumed in 2010, India was the largest consumer of antibiotics for human health
- India accounted for 3% (4th largest) of Global consumption of antibiotics in food animals behind China (23%), USA (13%) and Brazil (9%)
AMR Contributory Factors

- **Inappropriate use** (overuse, underuse and misuse) of antimicrobials in:
  - Clinical medicine by Patient, Chemist and by doctors
  - Veterinary medicine
  - Agronomic and industrial practices. (Environmental pollution)

- **Poor infection prevention and control** in health care settings and home

- **Poor quality Antibiotics.**
Sources and pathways for antibiotic contamination of water and soil

- **Antibiotics for human use**
  - excreta (hospital effluents)
  - excreta (private households)
  - waste disposal (unused medicine)

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  - municipal waste water
  - sewage farm
  - sewage treatment plant
  - surface water
  - aquaculture
  - pharmaceutical production plant

- **Antibiotics for animal use**
  - excreta
  - manure
  - sewage sludge
  - waste disposal site
  - soil
  - groundwater
  - drinking water
Consequences of Antimicrobial Resistance

- Infections not responding to available antibiotics
- Increased cost of treatment
- Increased morbidity and mortality
- Estimated 0.7 million deaths annually due to AMR → 50 million by 2050
- 100 Trillion $ US loss to global economy

AMR challenges: India

• Inadequately regulated use of antibiotics (human as well as veterinary sector)
• Use of antibiotics as growth promoters in animals (AGP)
• Inadequate implementation of regulations (Schedule H-1/Schedule X for human use)
• Limited regulations for food animals (but no regulations in non-food animals)
• Inadequate effluent treatment for Antibiotics
• Inadequate interaction among clinicians & laboratory experts, Veterinarians, environmentalists
Prescribing determinants of antibiotics

- Lack of appropriate knowledge
- Lack of trust in or delayed lab results
- Desire to meet patient demand
- Fear of clinical failure
- Economic incentives
- Unstable/inadequate drug supply
- Peer norms
- Marketing influence
- Traditional beliefs about antibiotics
What needs to be done to contain AMR

- Generate evidence through Surveillance
- Optimize use of antimicrobials through stewardship activities and regulating sale in human and veterinary sector
- Strengthening infection prevention and control
- Strengthening environmental control
- Strengthening Culture facility in Pvt Sec.
- Strengthen R&D for Development of Rapid point of care diagnostics, newer antimicrobials, vaccines
IMA- AMR

• the World Antibiotic Awareness Week in November 2017, IMA partnered with WHO

• Standing Committee on Antimicrobial Resistance to push AMR containment

• Launch of Public Awareness program on Doctors Day, 1st July 2019
• Press Conference
• To disseminate key AMR messages
• Public Lectures
• Hand Hygiene
• Promoting Swatch Bharat campaign
• Formulate IEC material & disseminate through social media, hoardings
• Vaccination program
IMA- AMR

- **Antimicrobial Stewardship (AMS) trainings**
  - Technical expert meeting (Standing committee)
  - Training of trainer program in IMA Hq with Nominated state co-ordinators
  - Two half day meetings in all state branches

- Regular AMR sessions in IMA meetings & State conferences

- Global Hand washing Day (15th October) could be used as focus for hand hygiene activities.


- Strengthening Hospital infection Program including environment hygiene