



WHO

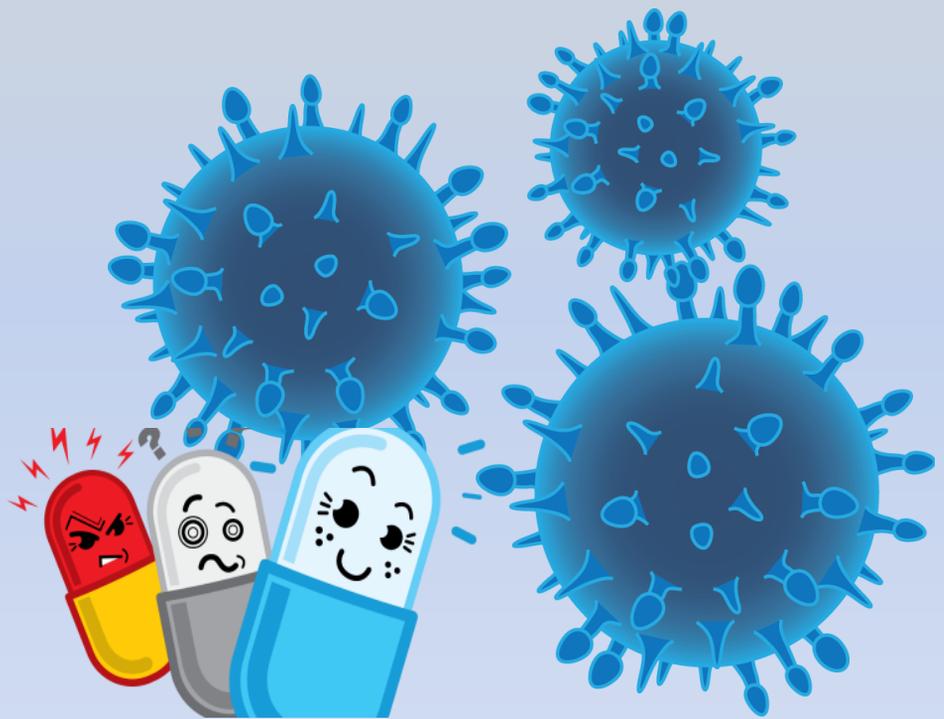


i-CARE Bulletin

(Initiative to Curb Antimicrobial Resistance)

An official publication of the **SEARPharm Forum**

January – 2020 (Volume 1, Issue 2)

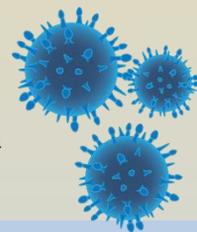


i-CARE Bulletin

An official quarterly e-news bulletin of SEARPharm Forum

C/o SBD College of Pharmacy,

1st Cross, Hanumantha Nagar, Bangalore - 560019, India



President

T. V. Narayana
India

Past President

Chinta Abhayawardana
Sri Lanka

Vice President

Nurul Falah Eddy Pariang
Indonesia

Members

Nasser Zahedee, Bangladesh
Manjiri Gharat, India

Advisers

PD Sheth, India
Teera Chakajnarodom, Thailand

Liaison officer

Ashok Sony,
Vice President, FIP

Observers

Dominique Jordan, President, FIP
Klara Tisocki, WHO SEARO

Gonçalo Sousa Pinto, Manager-Development Support, FIP

Lina Bader, Lead for Workforce, Transformation & Development, FIP

Professional Secretary

Rao Vadlamudi, India

Objectives of SEARPharm Forum

A Forum of **FIP & WHO with National Pharmaceutical Association of the South East Asian Region (SEAR)** with objective to encourage and support a dialogue and collaboration among national and regional pharmaceutical associations in the South-East Asia region of WHO and WHO SEARO. Bangladesh, India, Indonesia, Sri Lanka and Thailand are the founding nations of SEAR Pharm Forum, while Bhutan, DPR Korea, Maldives, Myanmar, Nepal and Timor-Leste are invited members of the forum. The defined objectives are,

- Improving health in the South- East Asian region by development and enhancement of pharmacy practice (Good Pharmacy Practice).
- Encouraging the implementation of pharmacy service and pharmacy practice projects by national pharmaceutical associations.
- Supporting WHO-policies and goals.
- Integrating appropriate WHO policies into undergraduate, postgraduate, and continuing education programmes in pharmacy.
- Formulating policy statements on health issues.
- Combating the production and distribution of counterfeit medicine and sale of medicine by people who are not qualified.

Official website: www.searpharm.org.



About *i-CARE Bulletin*

The objective of *i-CARE Bulletin* (a quarterly publishing e-news bulletin) is to disseminate the new knowledge and practices evolved to curtail antimicrobial resistance (AMR) and will address the issues in primary health care support, medication errors, rational use of medicine, case studies, utilisation of skills of pharmacists, use of off label drugs and legislation, disposables and medical devices and internet pharmacies.

The *i-CARE Bulletin* structure is designed to with primary focus on insights on antimicrobial resistance and health care activities of various organizations in SEA region, news related to initiatives of WHO, FIP, Common wealth association, SEARpharm forum and its members /pharmaceutical associations. It also accept the manuscripts of author interest including short review, opinion, commentary, new knowledge, new practice, new initiatives, problems, case report, medication errors, etc.

Manuscript Submission procedure

Authors / experts are advised to prepare the manuscript in word document with times new roman 11 font (text), 16 (title-bold), 12 (author-italic), double space not more than 3-4 pages (review/report/original research), 1-2 pages (Commentary/opinion/short review/Case report). The manuscript should be structured where table and figures are required to be incorporated at appropriate place. Maximum of two figures and two table is allowed. In case of case report or clinical data or news, the author are solely responsible for ethical clearance and permission to publish. The reference style should be as per Vancouver style. Authors Photograph in JPEG image (optional) and complete affiliation with email and country information is essential in the first page of manuscript. All submissions shall be forwarded as email attachment to icaresear@gmail.com.

EDITORIAL TEAM

Editor

P Ramalingam, India

Associate Editors

Mohanraj M Rathinavelu, India

G Sumalatha, India

Editorial Assistants

U Veerendra, India

Shaheela, India

EDITORIAL ADVISORY BOARD

Chinta Abhayawardana, Sri Lanka

Nurul Falah Eddy Pariang, Indonesia

TV Narayana, India

Rao Vadlamudi, India

PD Sheth, India

B Suresh, India



CONTENTS

Messages

- President, International Pharmaceutical Federation (FIP) 33
- President, SEARPharm Forum (SPF) 36

From Editorial desk 37

Articles – Author contributions

- Combating Antimicrobial Resistance: Current Scenario in Saudi Arabia
Abdulkarim M. Meraya, Mohammad Al bratty, Hassan Al Hazmi, Mamoon Hussain Syed, Asim Najmi, Neelaveni Thangavel* 38
- Antimicrobial Resistance in Dental Care-Current Challenges
Shishir Ram Shetty, Mohammed Shoaib Tippu, Shaju Philip* 41
- Antimicrobial Resistance Current Status and Way Forward
Vishnu Priya Padmanaban, Azger Dusthacker* 43
- A Road Map for Combating HIV Drug Resistance: Vision 2030
G Sumalatha, D Anupama* 45

Report

- SEARPharm Forum minutes of meeting 48
Rao Vadlamudi

News, Announcements & Advertisement 49

- Recent news from World Health Organization on Antimicrobial Resistance



Dr. Dominique Jordan
 President
 International Pharmaceutical Federation

Distinguished Colleagues from India,

It is my pleasure, my honor and my privilege to address you.

In my candidacy speech to the FIP Council last year, I outlined what my goals for my four-year tenure as President of FIP would be. Under the motto “Trust, solidarity and actions”, I consider it my mission to ensure the future of FIP by modernization and change. Building on the work of my predecessors, I want to increase the added-value of FIP for member organizations. Through efficient collaborations, the time has come for implementation and concrete actions according to the specific needs of your nation, your region, your locality.

Our vision: **“A world where everyone benefits from access to safe and effective medicines and pharmaceutical care”**, our mission: **“FIP improves global health by supporting the advancement of pharmaceutical practice, sciences and education”**, and the six strategic outcomes, agreed on by the FIP Bureau, set the frame to modernize our federation.

Under the maxim of “ONE FIP”*, we have started to break down the silos and unify FIP, with all structures working together. We are all dependent on each other. If I speak a lot about practice, it is not only because I am a practitioner myself, but also because it is the most visible part of pharmacy to the public and to governments. Community pharmacy and hospital pharmacy are the visible part of pharmacy. However, let me be clear: In order to consolidate the position of pharmacists in the different health systems and to be able to take new roles and provide new services, all three domains of pharmacy — science, education and practice — are crucial. Practice cannot exist without science or education and only this interdependency and the collaboration of these three domains can ensure universal health coverage.

FIP’s role as the global leader of pharmacy is to help member organizations meet challenges of the future and to support pharmacists in their needs to achieve their goals. FIP is the ideal platform that pulls together member organizations, partners and corporates, creating relationships that are mutually beneficial to all. We have member organizations with specific needs and member organizations, partners or providers with corresponding skills. FIP will lead and coordinate the different actions and define standards as well as recommend FIP-approved tools and projects.

On a tactical level, we reinforced our collaboration with partners over the past 12 months. During the World Health Assembly in Geneva, we signed a Memorandum of Understanding with the World Health Organization to support their initiatives in human resources for health, primary health care and universal health coverage. When we consider the 10 threats in 2019, identified by the WHO, it is evident that pharmacists can play an active role in all of them. Joining the WHO in action in these fields, we will be able to prove, by 2022, that pharmacists are important players in making a difference in a region or country. FIP is planning a Ministers' Summit for 2022. In Geneva, we also discussed with Dr Tedros, the WHO Director-General, fair pricing, medicine shortages, the sustainability of the pharmacists' services to the people and the importance of having the right remuneration for these services. These are current issues in most of the countries and they are on our agenda.

Being at the Global Conference on Primary Health Care in October last year in Astana, Kazakhstan, was a pivotal moment for FIP.

In Astana, political commitment to strengthen primary health care was reinvigorated through the Astana Declaration on Primary Health Care, to which FIP contributed. Clearly, pharmacists, who practice at the hearts of the world's communities, make huge contributions to primary care. In Astana, FIP strongly promoted the value of pharmacists as primary healthcare providers. However, we also followed up with action. It is well known that the implementation of concrete projects bringing a benefit for the people can only happen on a national or regional level, and according to the region's needs.

In the "ONE FIP" strategy, FIP wants to support and motivate all of our member organizations to be pro-active and to be part of the evolution of our profession all over the world. Because, in the end, pharmacists will make the difference; as it is pharmacists who are working at the heart of their communities and, thanks to pharmacists, everyone benefits from access to safe and effective medicines and pharmaceutical care.

My ambition is, in collaboration with you, to develop community and hospital pharmacy in India. Universal health coverage and the reinforced role of pharmacists are in line with the goal of WHO and the Astana declaration. I am convinced that if we are working together in a pragmatic way, using the same tactic I applied in my home country of Switzerland, we will be successful. We first need a clear and simple strategy, which is easy to communicate. The first step is to adapt education (we have the Nanjing Statements) in order to provide the pharmacist with the necessary skills for the future. With an adequate postgraduate education (for example, a title of specialist in community pharmacy and in hospital pharmacy) and mandatory continuous education, we will make sure that every pharmacist has the competencies to become an even greater support for national or regional health systems. Quality and patient safety are the priorities. Parallel to this, we have to work with the government and policymakers to adapt the legislation.

Well-educated pharmacists should be authorized to provide pharmaceutical services for chronic and acute patients as well as to play a crucial role in health promotion and illness prevention (vaccination is an issue all over the world). To assure the sustainability of new services, it is essential to give pharmacists adequate remuneration. A margin is definitively not the right way to remunerate services. Safe and affordable medicines will complete the tools that practitioners will need to consolidate their place in the health system. As you see, all domains of pharmacy (science, education and practice) have to work together for the pharmacists to succeed and benefit our people as well as our health systems.

This undertaking is ambitious, but I know it is possible to be successful. We achieved it in Switzerland, so it is also possible in India. As President of FIP, I will be happy and honored if we can work together in achieving the priorities you decide on for your country. FIP is planning a Ministers' Summit for 2022. Let us prove that pharmacists are important players in making a difference in a region or country. It would be wonderful to present first results we achieved in India at this summit.

Long live pharmacy,

Long live Indian pharmacy,

Long live FIP!.

*In the "ONE FIP" strategy, FIP wants to support and motivate all of our member organizations to be pro-active and to be part of the evolution of our profession all over the world.

This message is reproduced with permission from Indian Pharmaceutical Association (IPA).

Dr. Dominique Jordan

President

International Pharmaceutical Federation



T.V. Narayana
President
SEARPharm Forum

Dear Readers,

A happy and prosperous New Year 2020 to all.

Its been a blessing to serve as the President of the SEARPharm Forum (South-East Asia Region Pharm Forum). Thankyou, form the bottom of my heart, for this great opportunity to serve you and the humanity.

In this, my first letter as newly elected President of SEARPharm Forum, I would like start by expressing how much of honour and privilege its to serve SEARPharm Forum (FIP Forum of National Pharmaceutical Associations in collaboration with WHO Regional office of South-East Asia) formed in June 2001.

In my capacities as President, I assure contribution of commitment with defined objective, high-set priorities with the team and members, for the quality and safety of pharmacy professional in practice, and health of our communities.

I extend my best wishes and congratulations to the great initiative taken up by the SEARPharm Forum, for coming up with its official e-news bulletin i-Care Bulletin, on Antimicrobial Resistance, which is a need of hour; since microbial threat is a major global risk.

Thank you !

Dr. T.V. Narayana
President
SEARPharm Forum

Dear Readers,

*We're happy to share that the inaugural issue of **i-CARE Bulletin** released during the 79th FIP World Congress of Pharmacy and Pharmaceutical Sciences: 22 – 26 September 2019 at Abu Dhabi, United Arab Emirates on World Pharmacists Day 25th September 2019; got a good response and appreciation from the pharmacy professionals and leaders.*

In the same meeting **Prof T V Narayana**, President, The Indian Pharmaceutical Association (IPA) was unanimously selected as the **President of the SEARPharm Forum** (South-East Asia Region Pharm Forum).

The Editorial Board of **i-CARE Bulletin** takes this as a great privilege in congratulating Prof T V Narayana for his new position as The President SEARPharm Forum, and we pledge our further support and look forward to productive cooperation.

The editorial board of the **i-CARE Bulletin**: a quarterly publishing official e-news bulletin of SEARPharm Forum - The International Pharmaceutical Federation (FIP) Forum of National Pharmaceutical Organizations in collaboration with World Health Organization (WHO) Regional Office for South East Asia, secretariat is based in Bangalore, India; take this opportunity in congratulating Prof. T V Narayana for his stupendous contribution towards the profession of pharmacy and getting elected as President, SEARPharm Forum.

The objective of **i-CARE Bulletin** is to disseminate the new knowledge and practices evolved to curtail antimicrobial resistance (AMR) and will address the issues in primary health care support, medication errors, rational use of medicine, case studies, utilization of skills of pharmacists, use of off-label drugs and legislation, disposables and medical devices and internet pharmacies.

This issue comprised review articles from different academic researchers from different universities of Saudi Arabia, United Arab Emirates and India. This issue provided the information on **FIP guidelines “Coronavirus 2019-nCoV outbreak: Information and interim guidelines for pharmacists and the pharmacy workforce”**

Thank you,

Dr P Ramalingam
Editor

Dr Mohanraj M Rathinavelu
Dr G Sumalatha
Associate Editors

Combating Antimicrobial Resistance: Current Scenario in Saudi Arabia

Abdulkarim M. Meraya*, Mohammad Al bratty¹, Hassan Al Hazmi¹, Mamoon Hussain Syed, Asim Najmi¹, Neelaveni Thangavel¹

* Department of Clinical Pharmacy, College of Pharmacy, Jazan University, Jazan, P.O. Box 114, KSA-45142 ¹ Department of Pharmaceutical Chemistry, Jazan University, Jazan, P.O. Box 114, KSA- 45142

Antimicrobial or antibiotics resistance (AMR) has been a challenge for the health fraternity and governments globally. AMR of urinary and respiratory tract bacterial pathogens has become common and pose great difficulty in the treatment of common urinary tract and respiratory tract infections. The emergence of multi-drug resistant, pan drug-resistant bacterial strains which fail to respond to last-line drugs and/or any of the clinically used antibiotics is a reason for increased mortality worldwide leading to the intense burden on healthcare systems and economy¹. Published shreds of evidence about the prevalence of antibiotic-resistant bacteria in the Kingdom of Saudi Arabia (KSA) is available. KSA has recorded the existence of Gram-negative bacilli resistant to Carbapenem, extended-spectrum β -lactamase producing *E. Coli*, *K. Pneumoniae*, *A. baumannii* resistant to Carbapenem, and Methicillin, Penicillin G and Erythromycin-resistant *S. aureus* during last ten years². Colistin is used to treat carbapenem-resistant Gram-negative strains, but there is an emergence of colistin-resistant strains too. Though Tuberculosis is endemic to KSA, it has registered a decline in the number of cases in recent years as reported by World Health Organization (WHO)³. *M. tuberculosis* resistant to antibiotics is also prevalent in KSA and exhibits a region-based resistant pattern according to literature studies, but their prevalence is low⁴. Similarly, the occurrence of malaria has currently decreased than in the last five years. *P. falciparum* is the major malarial parasite identified in KSA⁵. Uncomplicated malaria is treated with Artesunate with Sulfadoxine-Pyrimethamine (ASP) as first-line drugs. Ministry of Health (MOH), KSA has reported that there is no evidence of higher levels of resistance for ASP therapy⁶.

Regional Risk Factors Influencing AMR

The possible causes for the development and spread of AMR in KSA have been identified through various mechanisms. Un-optimized use of antibiotics in hospitals⁷, self-medication with antibiotics⁸, over-the-counter antibiotics⁹ are the most important reasons for AMR. Also, included reasons are less adherence to infection control practices and extensive travel activities in the region due to the Hajj pilgrimage².

Saudi Combat of Antibiotic-Resistant Bacteria

In early March 2015, the Kingdom of Saudi Arabia joined the Global Health Safety Agenda (GHSA) of the WHO as a permanent steering group member and plays an active role in its governance. In January 2017, a 36-page National Action Plan to tackle anti-microbial resistance was charted out by the National Committee of the Ministry of Health which entails active collaboration and coordination among all health sectors, government agencies and also private organizations. Under this National Action Plan, 5 sub-committees have been structured in order to achieve the “one health approach” and the AMR objectives laid down by the World Health Assembly. These sub-committees include the Awareness Committee as well as Lab Monitoring Committee for antibiotic-resistant bacteria, Committee for Optimization of Antibiotic use, Infection control Committee and Pharmacoeconomics Studies & Research Committee for antibiotic-resistant bacteria.

The committees engage in a multitude of tasks: addressing the management of antibiotic resistant bacteria across the Kingdom, chalking out the strategic plan, spreading awareness about AMR, implementation of programs for infection control and antibiotic stewardship, to study the economic burden of AMR resistance in humans as well as in animal health, to name a few. To take a step further, in May 2017, the Kingdom enrolled itself in the Global Antimicrobial Resistance Surveillance System (GLASS) which strives towards global standardization of AMR surveillance. Due to the continued and tireless efforts of the Kingdom of Saudi Arabia in preparing and implementation of the National Action Plan, the WHO has published the country's action plan in November 2017¹⁰.

KSA's Response to WHO, AMR Action Plan

A joint National Committee was set up under the aegis of the MOH in January 2017 to address the AMR issue. This committee incorporated representatives from 9 bodies in MOH, 14 governmental non-MOH bodies and 3 non-governmental organizations.

Ministry of Health

1. National CDC (Centers for Disease Control and Prevention)
2. Assistant deputy ministry for preventive medicine (The General Directorate of Infection prevention and control, The General Directorate for Infectious Diseases, Field Epidemiology program)
3. The General Directorate of Laboratories and Blood Banks
4. National Health Laboratory
5. The General Directorate of Pharmaceutical Affairs
6. The General Directorate for Hospitals
7. The General Directorate for Media and general affairs
8. Medical Cities
9. The Directorate of Medical Licensing

Governmental non-MOH

1. Ministry of Environment, Water, and Agriculture
2. Ministry of Education
3. Ministry of Defense - Health Affairs
4. Ministry of Interior - Health Affairs
5. Ministry of National Guard - Health Affairs
6. Ministry of Culture and Information
7. King Saud University
8. King Abdul Aziz City for Science and Technology (KACST)
9. King Saud Bin Abdul Aziz University for Health Sciences
10. King Faisal Specialist Hospital and Research Center
11. Saudi Food and Drug Authority
12. Gulf Cooperation Council - Centre for Infection Control
13. Central Board for Accreditation of Healthcare Institutions (CBAHI)
14. Saudi Commission for Health Specialties

Non-Governmental Organizations (NGOs)

1. The Saudi Society for Medical Microbiology and Infectious Diseases
2. The Saudi Society for Pediatric Infectious Diseases
3. The Saudi Society for Sterilization and Infection control

MOH Issues Regulation against the Sale of Antibiotics Without Prescription

The MOH has taken a firm step in April 2018 to curb the irrational use of antibiotics in the Kingdom. It imposed a new enforcement of the "Executive Regulations of Health Practice Law" that promulgates prohibition of sale of antibiotics in community pharmacies without a prescription from a licensed medical practitioner. The MOH disseminated this information through various platforms on the social media and warned the violators against legal action that can lead to imprisonment up to 6 months, cancellation of licenses and fines amounting up to 100,000 Saudi Riyals.

The MOH continuously conducts awareness programs and activities across the Kingdom to educate the public and healthcare personnel not only about the importance of safe use of antibiotics but also to make them cognizant of the perils of irrational antibiotic use.

Conclusion

Together in the global march towards combating AMR, KSA has taken the lead and has started implementing stringent regulatory guidelines and surveillance programs to control the misuse of antibiotics and to monitor the spread of AMR. WHO's and MOH, KSA's initiatives in thrashing AMR shall decrease or abolish the occurrence of fatal cases due to AMR and shall improve the quality of social life and well-being in KSA.

References

1. Yagoub U, Al Qahtani B, Hariri IA, Al Zahrani A, Siddique K. Antibiotic resistance: a hospital-based multicenter study in Tabuk city, Kingdom of Saudi Arabia. *Infection and Drug Resistance*. 2019;12:1815.
2. Zowawi HM. Antimicrobial resistance in Saudi Arabia: An urgent call for an immediate action. *Saudi medical journal*. 2016;37(9):935.
3. <https://extranet.who.int/sree/Reports/PROD/EXT/TBCountryProfile>
4. Yezli S, Memish ZA. Tuberculosis in Saudi Arabia: prevalence and antimicrobial resistance. *Journal of Chemotherapy*. 2012;24(1):1-5.
5. Khalifa A, AlShammari A, AlShubrmi D, Alreshidi M, Albaqawi R, ALShammari R. (Malaria in Saudi Arabia in the last six years (2011-2016). *مجلة العلوم الطبية و الصيدلانية*. 2017;1(2).

6. Alam MZ, Alam Q, Jiman-Fatani AA, Shukri HA, Haque A. A surveillance study on the prevalence and antimicrobial resistance pattern among different groups of bacteria isolated from Western province of Saudi Arabia. *Biomedical Research (0970-938X)*. 2017;28(2).
7. National Malaria Drug Policy, 2008, Ministry of Health, Saudi Arabia.
8. Alghadeer S, Aljuaydi K, Babelghaith S, Alhammad A, Alarifi MN. Self-medication with antibiotics in Saudi Arabia. *Saudi pharmaceutical journal*. 2018;26(5):719-24.
9. Nafisah SB, Nafesa SB, Alamery AH, Alhumaid MA, AlMuhaidib HM, Al-Eidan FA. Over-the-counter antibiotics in Saudi Arabia, an urgent call for policy makers. *Journal of infection and public health*. 2017;10(5):522-6.
10. <https://www.moh.gov.sa/en/Ministry/MediaCenter/News/Pages/News-2017-11-19-002.aspx>
11. <https://www.moh.gov.sa>
12. www.bsac.org.uk/antimicrobialstewardship/ebocook/National-AMR-Plan-
13. <https://www.moh.gov.sa/en/Ministry/MediaCenter/News/Pages/news-2018-04-17-004.aspx/>

Received: 20th December 2019

Accepted: 2nd January 2020

Abdulkarim M. Meraya

*Assistant Professor, Department of Clinical Pharmacy,
College of Pharmacy, Jazan University, Jazan,
P.O. Box 114, KSA- 45142
Email: ammeraya@gmail.com*



Antimicrobial Resistance in Dental Care-Current Challenges

Shishir Ram Shetty, Mohammed Shoaib Tippu, Shaju Philip*

** Assistant Professor and Specialist, College of Dentistry, Gulf Medical University, UAE*

Many experts and researchers believe that antimicrobial resistance (AMR) will be of the major global health concern of this century.¹ The field of dentistry has a significant role to play because of ever increasing use of antibiotics. Leading global associations including World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), American Dental Association (ADA), British Dental Association (BDA), and the Canadian Dental Association (CDA) have devised strategies to increase the responsiveness among dental health professionals to contain the increment of AMR.¹

Antibiotics are used by the dentist most often to treat acute and chronic infections in the oral cavity. Studies have reported 30% to 50% of prescribed antibiotics are overprescribed and not indicated dental diseases.² However there are reports stating instances pertaining the use of antibiotics in endodontic (root canal treatment) even when the cases could have been managed without antimicrobials.^{3,4}

Some recent articles have discussed the various causes for over prescription of antibiotics during treatment.⁴ Important reasons were to prevent endodontic flare-ups and spread of infection.⁵ The literature review reveals that another important cause for over prescription is to create placebo effect on the patient by alleviating their apprehension.⁶ Other frequently reported cause for over prescription is to prevent post endodontic pain and to improve treatment outcome.⁷ Prolonged antimicrobial therapies also contributes to increase the population of resistant microbial strains.⁸ Standard guidelines recommend that the dentists should decrease the use of broad spectrum antibiotics. However several researchers have found that confirm that dentists have a preference for moderate to broad spectrum antibiotics over those with a more appropriate narrow spectrum which increases the antimicrobial resistance.⁹

Another important observation in specific to dental practice when compared to their medical counterparts is sparsely using culture-sensitivity tests and relying more on “guess work” to treat dental infections.¹⁰

References

1. Aguilar M M. Antimicrobial Resistance: What Should Dentists be Doing? *ODOVTOS-Int J Dent Sc*2016; 18:10-14.
2. Demirjian A, Sanchez GV, Finkelstein JA, Ling SM, Srinivasan A, Pollack LA, et al. CDC Grand Rounds: Getting smart about antibiotics. *MMWR Morb Mortal Wkly Rep* 2015;64:871-3.
3. Aminoshariae A, Kulid JC. Evidence-based recommendations for antibiotic usage to treat endodontic infections and pain. *JADA*. 2016;147 (3):186-191.
4. Bansal R, Jain A, Goyal M, Singh T, Sood H, Malviya HS. Antibiotic abuse during endodontic treatment: A contributing factor to antibiotic resistance. *J Family Med Prim Care* 2019;8:3518-24.
5. Akbar I. Efficacy of prophylactic use of antibiotics to avoid flare up during root canal treatment of nonvital teeth: A randomized clinical trial. *J Clin Diagn Res* 2015;9:ZC08-11.
6. Fouad AF. Are antibiotics effective for endodontic use? An evidence-based review. *Endod Topics* 2002;3:52-66.
7. Konagala RK, Mandava J, Pabbati RK, Anupreeta A, Borugadda R, Ravi R. Effect of pretreatment medication on postendodontic pain: A double blind, placebo controlled study. *J Conserv Dent* 2019;22:54-8.
8. Lacey RW, Lord VL, Howson GL, Luxton DE, Trotter IS. Double blind study to compare the selection of antibiotic resistance by amoxicillin or cephadrine in the commensal flora. *Lancet* 1983;2:529-32.

9. Ford PJ, Saladine C, Zhang K, Hollingworth SA. Prescribing patterns of dental practitioners in Australia from 2001 to 2012. *Antimicrobials Aust Dent J* 2017;62:52-57.
10. Haque M, Sartelli M, Haque SZ. Dental Infection and Resistance—Global Health Consequences. *Dent J* 2019; 7: 22; doi:10.3390/dj7010022.

Received: 31st December 2019

Accepted: 11th January 2020



Dr Shishir Ram Shetty

*Assistant Professor and Specialist, College of Dentistry, Gulf Medical University, UAE
Email-shishirshettyomr@gmail.com*

Antimicrobial Resistance Current Status and Way Forward

Vishnu Priya Padmanaban¹, Azger Dusthacker^{2*},

¹ Ex-Anna University student, Chennai,

^{2*} Department of Bacteriology, ICMR-National Institute for Research in Tuberculosis, Chennai, Tamil Nadu, India.

In 1945, Alexander Fleming in his Nobel lecture¹ has pre warned the world of irrational use of antibiotics and emergence of antimicrobial resistant. Ignorance and negligence has led to the current state of globe burdened with multidrug resistance. The advent of discovery of antibiotics (penicillin) has led to the co trigger of resistant mechanism in microbes. In 1940s Penicillinase, a β lactamase was identified and described without the knowledge of *S. aureus* capability to produce them. With the rapid emergence of macrolide resistance in *S. aureus* methicillin was introduced in 1950s. In 1960s MRSA emerged, marking the arrival of *S. aureus* as multi drug resistant (MDR)².

AMR and Tuberculosis

Tuberculosis is a treatable and curable infectious disease which prevails from ancient times. It imposes a serious threat and burden to global public health. The basic complexities involved are accurate diagnosis, time lapse between diagnosis and treatment and completing the course of treatment. For a wild type strain four standard drug treatment regime (front line drugs) is recommended for a span of 6 months. The front line drugs (Isoniazid, Rifampicin, Ethambutol and Pyrazinamide) treatment can be successful on wild type strains, but proven futile against drug resistive strains. The structure of the bacterium and its biochemical response to the stimuli (drug) is observed to induce chromosomal mutation as a defense mechanism, which is the key challenge in the treatment i.e emergence of drug resistance.

AMR and infectious diseases

Antibiotics are deemed fit or unfit in the clinical scenario based on its clinical break points like minimum inhibitory concentration (MIC) and end points like minimum bactericidal concentrations (MBC). But MIC is often considered to represent the grey zone².

World Health Organization (WHO) has remarked AMR as greatest threat to human health. And as the defensive measure it has released priority pathogens (threat list) based on the critically of its resistance to existing antibiotics³.

Bacterium or bacterial family (and antibiotics it resists)

Priority: Critical

1. *Acinetobacter baumannii* (carbapenem)
 2. *Pseudomonas aeruginosa* (carbapenem)
 3. Enterobacteriaceae (carbapenem) ESBL-producing
-

Priority: High

4. *Enterococcus faecium* (vancomycin)
 5. *Staphylococcus aureus* (methicillin, vancomycin)
 6. *Helicobacter pylori* (clarithromycin)
 7. *Campylobacter* spp. (fluoroquinolone)
 8. Salmonellae (fluoroquinolone)
 9. *Neisseria gonorrhoeae* (cephalosporin, fluoroquinolone)
-

Priority: Medium

10. *Streptococcus pneumoniae* (penicillin-non-susceptible)
 11. *Haemophilus influenzae* (ampicillin)
 12. *Shigella* spp. (fluoroquinolone)
-

Table 1: List of priority pathogens released by WHO. Ref: Williyard et.al 2017³.

AMR and HIV

HIVDR are the mutant strains of HIV in the presence of antiretroviral drug. The treatment of AIDS has its own complexities and challenges, when the existing drugs turn resistive which can further spread, intensifies the issue to magnanimous level. Treating an infectious disease on an immunocompromised patient is challenge. The treatment becomes futile if the pathogen is resistive to antibiotics. HIV patients often suffer with co infection of TB or pneumococcal diseases.

AMR and Cancer

Intense nature of chemotherapy in anticancer treatment has too many flaws on its own. The treatment results in ultimate eradication of the beneficial microbes specifically gut microbiome. The chemotherapy inclusive of antibiotics in cancer patients is found to alter the gut microbiome leading to infection with sepsis⁴. Papanicolas⁴ and his colleagues (2018) argues that the chemotherapy is identified to be spearheading the antimicrobial-resistance due to activation of SoS system in cancer patient and advises a treatment considering the commensal gut microbiome.

Socio economic issues for sustained development

As we speak multiple antimicrobial products are produced, marketed and consumed by the public. Specifically antimicrobial paints, light, detergent etc. They contain organohalides such as copper, silver ions, triclosan etc. which is known to arrest and eliminate wide variety of microorganisms. Increasing the exposure to antimicrobials is not ideal and in turn it intensifies the issue. Rationalizing and normalizing the usage of chemically synthesized antimicrobial products is formidable as it weakens the individual further and bring yet another reasons for emergence or render further resistance to superbug.

Antimicrobial Stewardship

Antibiotics, once a stalwart of World War II; which posed a quick remedy; which cured and saved millions of life now terrorize the globe with the emergence of AMR. Listing the cons of AMR is endless. Irrational use or over or under dosage of antibiotics are the point of concern in any disease condition. To deal with this issue antimicrobial stewardship (ASP) i.e usage of antibiotic treatment in an organized way is the clear solution. Researchers, health care professionals, doctors and pharmacists are expected to collaborate and contribute in a structured manner to accomplish the ASP.

The play of microbiome in the body and its response to antibiotics is gaining slow attention⁴. The potency and eventual prescription of the drug should not be identified only with the front end data of infection control or observable toxicities but the drug implications on the host microbiota and hematological malignancy which happens at the rear end⁵.

Akiten et.al (2019)⁵ in a commentary has listed the core elements to achieve ASP, which are leadership commitment, accountability, drug expertise, action, tracking, reporting and education in cancer treatment. The effectiveness of the anti-infective agents can be secured and harvested by the patients only when it is administered and monitored in an organized way minimizing the overuse. De novo antimicrobial resistance is the least anyone would wish for in the current climate. Needless to say the economic burden the existing AMR imposes on the public health. Antimicrobial Stewardship should be the way forward to address the issues pertaining to AMR.

References

1. Lecture, N., 1945. Nobel Lecture, December 11, 1945.
2. Friedman, N.D., Temkin, E., Carmeli, Y., 2016. The negative impact of antibiotic resistance. Clin. Microbiol. Infect. 22, 416–422.
3. Torgerson, C.M., Mapp, B., n.d. 2017. Drug-resistant bacteria ranked. Nature. 543,15.
4. Papanicolas, L.E., Gordon, D.L., Wesselingh, S.L., Rogers, G.B., 2018. Not Just Antibiotics: Is Cancer Chemotherapy Driving Antimicrobial Resistance? Trends Microbiol. 26, 393–400.
5. Aitken, S.L., Nagel, J.L., Abbo, L., Alegria, W., Barreto, J.N., Dadwal, S., Freifeld, A.G., Jain, R., Nagel, J.L., 2019. Cancer: The Time Is Now 17, 772–775.

*Vishnu Priya Padmanaban,
Ex-Anna University student, Chennai,
Tamil Nadu., India*

Received: 23rd December 2019
Accepted: 04th January 2020

A Road Map for Combating HIV Drug Resistance : Vision 2030

G Sumalatha, D Anupama*

Vikas Institute of Pharmaceutical Sciences, Rajahmundry, Andhra Pradesh, India ,

HIV Drug resistance (HIVDR) is a serious, emerging, significant global health threat to the people of HIV1. The emergence of HIVDR is multi-factorial which includes stock-outs of drugs, poor health-service quality and treatment breakouts that limits HIV treatment options, enhances treatment program costs and if left untreated, resistant virus can increase in the body to the extent that it can be transmitted.¹ It is of great import to take collaborated efforts towards handling HIVDR. It has been observed that global prevalence of HIVDR is rising annually mainly due to Non - Nucleoside Reverse Transcriptase Inhibitors (NNRTIs) which are the first line Anti-Retroviral Treatment (ARVT) regimes of World Health Organization (WHO).² Further, weak health systems and reduced levels of compliance indulge HIVDR particularly in low and middle income countries.

WHO declared a replacement five-year global action plan for 2017-2021 to support a coordinated international effort to stop, monitor and answer the emergence of HIV drug resistance, and to strengthen country efforts to achieve the global HIV epidemic target.⁴ Prevention and management of HIVDR is a key component of a comprehensive and effective HIV response, and should be integrated into broader efforts to make sure sustainability and greatest impact. It is crucial to monitor, prevent and respond to HIVDR that are implemented at the clinical, program and policy levels to address the many drivers of HIVDR. In accelerating these goals to articulate synergistic actions against prevention of HIVDR the global action plan of WHO details a roadmap to prevent, monitor and respond to globally increasing levels of HIVDR with collaborated countries and funders.

The rise in antimicrobial resistance (AMR) is one of the greatest threats to global health. It may result in millions of deaths, and difficult to treat infections and raised health-care fetch.

As a result, combating AMR, including the threat posed by drug-resistant HIV, may be a major goal for the worldwide community. Prevention, monitoring and timely response to population levels of HIV drug resistance (HIVDR) is critical to achieving the WHO/UNAIDS 90-90-90 targets for 2020 that 90% of people living with HIV know their HIV status, 90% of those who know their HIV-positive status are accessing treatment and 90% of the people receiving treatment having suppressed viral loads. These targets reflect the global community's commitment to eradicating AIDS as a public health hazard by 2030.⁴ To acknowledge the Global Action Plan of WHO, many countries and funders are highly focusing on establishing robust and routine population-level monitoring of HIVDR to facilitate the scaling up of antiretroviral therapy (ART) and supporting a safe transition to new antiretroviral (ARV) drugs in first- and second-line ART.⁴ Implementation of WHO level action plan requires engagement of multiple stakeholders and changes at several levels before impact.

Analysis of WHO survey results that in 12 of 18 countries, the non-nucleoside reverse-transcriptase inhibitors (NNRTIs) Nevirapine (NVP) and Efavirenz (EFV) Pre treatment drug resistance (PDR) prevalence had exceeded 10%. Among women, NNRTI PDR was >10% in 14/18 countries, while among men PDR NNRTI prevalence was >10% in 10/18 countries. The NNRTI PDR prevalence among individuals starting first- line ART and reporting previous ARV drug exposure exceeded 10% in all reporting countries.¹ In 2017, WHO issued guidelines suggesting an alternative first-line regimen which does not contain Efavirenz or Nevirapine where resistance to these drugs exceeds 10%. Furthermore, 2018 WHO ARV guidelines recommended the rapid enactment of dolutegravir (DTG)-based regimens as the preferred first-line treatment that will avert the resistance to non-nucleoside reverse-transcriptase inhibitors (NNRTIs).

Based on surveys conducted in nine countries in sub-Saharan Africa between 2012 and 2018, over half of newly HIV diagnosed infants found resistant to efavirenz and/or nevirapine. However, in 2017, globally nearly 77% of young children were still receiving nevirapine in first-line ART because of limited supplies of child-friendly drug formulations. Therefore achieving the third 90 target for maximal viral load suppression, by preventing the emergence and transmission of HIVDR, is censorious for eliminating AIDS as a public health threat by 2030.¹

South Africa with highest prevalence rates, where more than a quarter population is infected witnessed largest national HIV program in the world. UNITAID has played a key role in ushering the new and improved treatment, which works toward ending the HIV epidemic. Triple drug regimen- new regimen an affordable, cutting edge drug known as TLD (dolutegravir, lamivudine, and tenofovir disoproxil fumarate) a three-in-one pill, fixed-dose combination was developed with the financial support of UNITAID.

Dolutegravir is that the preferred first-line and second-line treatment recommended by the planet Health Organization (WHO), and is already the drug of choice in high-income countries³. The new TLD drug is highly effective and has much more rapid viral suppression than the current treatment regime TLE (tenofovir disoproxil fumarate, lamivudine and efavirenz) . Previously, TLE600, a fixed-dose, once-a-day medication containing a 600 mg dose and is the standard of care for most HIV treatment programs in low- and middle-income countries (LMICs). The generic version of TLD, the single pill, once-a-day, fixed-dose combination of tenofovir disoproxil fumarate, lamivudine and dolutegravir is a preferred treatment choice in the United States by the U.S. Department of Health and Human Services, TLD is relatively new in LMICs, its multitude of benefits, including TLD's improved tolerability and higher resistance barrier, a concentrated effort is underway to accelerate TLD's introduction in countries supported by the

U.S. President's Emergency Plan for AIDS Relief (PEPFAR). It's rapid rate of viral suppression, improved side effect profile and decreased barrier to resistance, the rapid introduction of TLD holds the promise to transform HIV treatment programs. The South Africa Department of Health will begin the rollout of TLD among people living with HIV on 1 December, which is World AIDS Day.³ The country has about 4.8 million people on antiretroviral treatment. Scale-up of the new regimen is expected to contribute to reaching goals for ending the HIV epidemic by 2030. A dramatic pricing agreement has been announced which can accelerate the supply of the primary affordable, generic, single-pill HIV treatment regimen containing dolutegravir (DTG) to public sector purchasers in low- and middle-income countries (LMICs) at around US\$75 per person, per year. The agreement is predicted to accelerate treatment rollout as a part of global efforts to succeed in all 36.7 million people living with HIV with high-quality antiretroviral therapy.³

On April 8, 2019 the US Food and Drug Administration (FDA) has issued an approval for dolutegravir and lamivudine (Dovato), as an entire regimen for treatment-naïve(never taken ARV drugs) adults with HIV. The first FDA-approved 2-drug, fixed-dose, complete regimen for treatment-naïve adults with HIV.⁵ With this approval, patients who haven't been treated have the choice of taking a two-drug regimen in a single tablet while eliminating additional toxicity and potential drug interactions from a 3rd drug. The efficacy and safety of dolutegravir/lamivudine as a once-daily tablet were demonstrated in 2 identical, randomized, double-blind, controlled clinical trials, GEMINI-1. They designed 2 identical trials called GEMINI-1 and GEMINI-2, to run concurrently at 192 different health centers in 21 countries. A total of 1433 adults with no prior antiretroviral treatment history were included. The trials showed that the regimen had an identical effect of reducing the quantity of HIV within the blood in comparison with a regimen of dolutegravir, emtricitabine, and tenofovir.

The treatment was considered successful if the patient maintained low-levels (less than 50 copies/mL) of HIV RNA in their blood for a minimum of 48 weeks. The results are consistent for the suppression of HIV across individuals with higher viral loads (>100,000 c/mL) and lower viral loads (loads (<=100,000 c/mL). In a pooled analysis, 81% of patients taking dolutegravir and lamivudine had HIV RNA <50 c/mL compared with 93% of patients taking dolutegravir, emtricitabine, and tenofovir.⁵

Two-percent of patients in each study arm withdrew because of adverse events, the most common of which being headache, diarrhea, and nasopharyngitis (dolutegravir/lamivudine arm: 10%, 9%, and 8%, respectively, dolutegravir, emtricitabine, and tenofovir: 10%, 11%, and 11%, respectively). Adverse events were less frequent in patients on the dolutegravir/lamivudine regimen (18%) compared with those on dolutegravir, emtricitabine, and tenofovir regimen (24%).

Received: 05th January 2020

Accepted: 10th January 2020

References

1. WORLD HEALTH ORGANIZATION (WHO). HIV drug resistance report 2019. Available online: <https://www.who.int/hiv/pub/drugresistance/hivdr-report-2019/en/>.
2. WORLD HEALTH ORGANIZATION (WHO). Update of recommendations on first- and second-line antiretroviral regimens. Available online: <https://www.who.int/hiv/pub/arv/arv-update-2019-policy/en/>.
3. CONTAGION : South Africa begins rollout of cutting-edge HIV drug. Available from: <https://www.theguardian.com/global-development/2019/nov/30/south-africa-begins-rollout-of-cutting-edge-hiv-drug>.
4. WORLD HEALTH ORGANIZATION (WHO). Global action plan on HIV drug resistance 2017–2021. Available online: <https://www.who.int/hiv/pub/drugresistance/hivdr-action-plan-2017-2021/en/>
5. CONTAGION: FDA Approves Dolutegravir/Lamivudine for Treatment-Naive Patients With HIV. Available online: <https://www.contagionlive.com/news/fda-approves-olutedgravirlamivudine-for-treatmentnaive-patients-with-hiv>.



D Anupama,
Assistant Professor



Dr G Sumalatha PhD,
Post Doc Fellow (NPDF, AICTE)
& Vice-Principal

Vikas Institute of Pharmaceutical Sciences, Rajahmundry, Andhra Pradesh, India
Email: sumacology@gmail.com

Minutes of Meeting (MoM)

South East Asian FIP-WHO Forum of Pharmaceutical Association

The SEARPharm Forum (SPF) meeting was held on September 25 2019, in Capital Suite Room 2, ADNEC, Abu Dhabi during the FIP Congress; during which Prof T V Narayana President The Indian Pharmaceutical Association (IPA) was unanimously selected as the President of the SEARPharm Forum (South-East Asia Region Pharm Forum for the tenure of 2019-2021. The meeting started with a note of Condolences in the memory of Late Mr. Sindhchai Keokitichai, President of SPF who passed away a few months ago

The meeting was attended by Mr. Ashok Soni, FIP Vice President and Liaison Officer for SPF, Ms. Chinta Abhywardana, Dr. Rao Vadlamudi, Professional Secretary, SPF, Dr. T. V. Narayana, Council Member, SPF, Dr. John Jackson, President of Western Pacific Pharmaceutical Forum and members of the MOs from India, Sri Lanka and Nepal..

The members of newly elected executive committee of SEARPharm Forum (2019-2021) is as follows: President: T. V. Narayana, Past President: Chinta Abhayawardana, Vice President: Nurul Falah Eddy Pariang, Members: Nasser Zahedee, Manjiri Gharat, Advisers: PD Sheth, Teera Chakajnarodom, Liaison officer: Ashok Sony, Vice President, FIP, Observers: Dominique Jordan, President, FIP, Klara Tisocki, WHO SEARO, Gonçalo Sousa Pinto, Manager-Development Support, FIP, Lina Bader, Lead for Workforce, Transformation & Development, FIP and Professional Secretary Rao Vadlamudi.



News & Announcements

Source: <https://www.who.int/news-room>

WHO Congratulates Sri Lanka for eliminating mother-to-child transmission of HIV, Syphilis:

“Sri Lanka’s achievement once again demonstrates the country’s commitment to public health and builds on strong foundation of PHC services that it laid several decades ago,” said Dr Poonam Khetrpal Singh, Regional Director, WHO South East Asia.

The country has not reported any case of mother-to-child transmission of HIV since 2017 and its congenital syphilis cases has consistently been two per 100 000 live births, much less than fifty per 100 000 live births needed for elimination certification, as per the findings of the GVAC.

Sri Lanka is the third country in WHO SEAR to achieve this after Thailand and Maldives.

10 December 2019 New Delhi, India

Malaria on the decline in WHO SEAR; efforts must continue as risk persist:

As WHO South-East Asia Region continues to register a steep decline in malaria incidence, the WHO reiterated accelerated converted efforts by member countries to achieve zero malaria by 2030.

The World Malaria Report released on 4th Dec-2019 states that, in 2018 WHO South-East Asia Region had an estimated 8 million cases and 11 600 malaria deaths; 69% and 70% less as compared with 2010. This is the largest decline among the six WHO Regions.

Maldives and Sri Lanka are the two countries have been certified malaria free and two more, Timor-Leste and Bhutan, are close to elimination target. Being the highest burden country of this Region, India reduced its reported cases by half as compared with 2017. Bangladesh and Thailand also reported substantial decline in reported cases.

However, despite progress, an estimated 1.61 billion people in the Region continue to remain at risk of malaria with the disease being endemic in 9 countries; its further required to intensify the efforts, at various levels to strengthen surveillance and reach the most vulnerable and marginalized communities.

04 December 2019 New Delhi, India

News & Announcements

Adopt and implement high-impact interventions to secure the future of antibiotics and rollback the global AMR crisis:

Antimicrobial Resistance (AMR) is a global crisis that threatens the future of our most precious drugs: antibiotics. Across the world, AMR kills an estimated 700 000 people annually, including 230 000 from MDR-TB. By 2050, unless urgent action is taken, AMR is expected to kill 10 million annually. The emergence and spread of antibiotic resistant bacteria responsible for substantial proportion of the AMR burden is accelerated by the overuse and misuse of antibiotics in human and animal health.

The WHO South-East Asia Region is taking decisive action to combat AMR, which since 2014 has been a Flagship Priority. All Member States have developed a national multisectoral action plan to address AMR. They are now implementing them. Each Member State has signed on to the Global Antimicrobial Resistance Surveillance System, a key initiative that will advance AMR-related research. Region-wide, the Tripartite Collaboration on AMR, which comprises WHO, the FAO and the OIE, is addressing vulnerabilities in the human and animal health sectors, as well as in agriculture. Ensuring antibiotics are used rationally continues to be a core priority.

In pursuit of the Region's Flagship Priority on AMR, as well as its quest to achieve universal health coverage, health authorities Region-wide should adopt and implement several high-impact interventions.

1. WHO's AWaRe classification tool should be fully harnessed. The AWaRe tool groups antibiotics into three main categories – 'Access', 'Watch' and 'Reserve' – based on their strength and potential impact on AMR. By adopting the tool's classification scheme, health authorities can more effectively monitor antibiotic consumption, align their essential medicines list (EML) with WHO's Model EML, and update or establish treatment guidelines that increase the appropriate use of antibiotics. Each outcome will fast-track preventive efforts.
2. Increased focus should be given to strengthening infection prevention and control (IPC) in health care facilities. Clean water, adequate sanitation and essential equipment are all crucial to providing health care that is of adequate quality and which minimizes health care-associated infections. So too are health workers and facility staff that are trained in and implement IPC. All efforts should be made to ensure that health facilities from the primary level up are fit for purpose, and do not serve as AMR incubators.
3. Political leadership, advocacy and coordination on AMR should be scaled up. This is especially so when it comes to empowering all people to take responsibility for the future of antibiotics – the theme of this year's World Antibiotic Awareness Week. From promoting the appropriate prescribing of antibiotics to emphasizing the need to reduce antibiotic usage in the animal sector, leaders from all sectors should drive home an important point: The future of antibiotics is in our hands.

News & Announcements

Adopt and implement high-impact interventions to secure the future of antibiotics and rollback the global AMR crisis:

WHO is committed to supporting Member States as they continue to go from strength to strength in the battle against AMR. Together we can improve antibiotic treatment, increase access to antibiotics and reduce antimicrobial resistance. Together we can secure the future of our most precious drugs and rollback the global AMR crisis. We must act decisively. We must act now.

18 November 2019, India

The Global TB Report: A spur in the battle against the world's most deadly infectious disease

The Global TB Report's message to countries in the Region is simple: Accelerate efforts to end TB by 2030

The World Health Organization's Global Tuberculosis Report, released on 17 October, outlines several positive trends in the battle against the TB.

1. Efforts to expand TB treatment are yielding results. In 2018, 600 000 more people globally received TB treatment than the previous year. TB-related deaths dropped by more than 6%.
2. TB prevention is picking up pace. Substantially more children below the age of five who are contacts of TB patients are accessing preventive treatment, with a 4% rise on 2017 levels. The coverage of People Living with HIV (PLHIV) rose by an impressive 19%.
3. We have made inroads in the fight against drug resistance. In 2018 more than 156 000 patients globally with rifampicin-resistant or multi-drug resistant TB initiated treatment, an increase of almost 12% on the previous year. Treatment success rates for both new and drug-resistant cases continue to improve.

But as the Report outlines, challenges persist.

Drug-resistant TB remains a serious global threat. Just one in three people afflicted are on treatment. Gaps in case notifications remain. An estimated three million patients globally are unaccounted for. Access to preventive treatment is insufficient. Just below half of people newly enrolled in HIV care are receiving preventive therapy. And funding shortfalls continue. In 2019 alone, committed global funding for TB diagnosis and care fell short by USD 3.3 billion.

The Global Report is clear: The world will struggle to reach the 2020 milestones of WHO's End TB Strategy. This is of concern given that by 2030 WHO and its Member States and partners aim to end TB, as reflected in the Sustainable Development Goals and the UN's High-level Political Declaration on the Fight against TB.

News & Announcements

As the world's most TB-affected Region, the South-East Asia Region's progress is significant. As per the Report, between 2017 and 2018 the Region's estimated case incidence fell from 226 per 100 000 people to 220 per 100 000. The notification of TB cases increased substantially, from 2.96 million to 3.36 million, with most cases coming from India and Indonesia – a credit to their resolve. Notably, the number of children under five who required preventive TB treatment and accessed it increased by 12%. Myanmar was identified as one of a clutch of countries on track to reach the global End TB 2020 milestones.

Though the Region's progress has been strong, more is needed. The Global Report's key takeaway is simple, and reflects the Region's Flagship Priority on the issue: Accelerate efforts to end TB by 2030.

To do that, active case-finding should be intensified. Efforts to engage communities should be stepped up and the private sector encouraged to act. In particular, community groups should be further empowered, including by engaging them in policy development. Information campaigns should be targeted at high-risk communities, and access to TB testing guaranteed.

Enhancing the coverage of preventive treatment is crucial. By fully implementing the Region's recently adopted action plan on latent TB, Member States can reduce the Region's annual burden of TB patients by an additional 12-15% annually. That equates to around 270 000 fewer patients each year. All household contacts of TB patients should be screened, in addition to PLHIV and those at high risk of developing the disease. Preventive treatment should be provided where needed.

Social protection and support mechanisms for TB patients should be augmented. Undergoing treatment for TB often involves time off work, which can impede treatment adherence. Food supplements and vouchers, transport subsidies and financial incentives are all important in ensuring the best patient outcomes are achieved and catastrophic costs are avoided. This is especially important as the Region strives to achieve universal health coverage.

Finally, all national action plans should be aligned with the Political Declaration's targets. As the Region works to attain the investment target of at least USD 2 billion annually, all countries must stay on target. Of the 40 million people globally that require diagnosis and treatment by 2030, at least 18 million will come from the South-East Asia Region. Of the 30 million that require preventive treatment, the Region will cover at least 10.5 million.

Though the Region's work is cut out, the foundations for progress are strong. We have high-level commitment. We have technical capacity. We have community buy-in and partner support. In other words, we have all the assets needed to act on the Report's findings and ensure the End TB strategy's milestones are met and the Political Declaration's targets are reached. WHO is committed to supporting Member States achieve each of these outcomes, and to securing the Region's continued progress. Ending TB by 2030 is possible. We must dare to be bold.

By Dr Poonam Khetrpal Singh, WHO Regional Director for South-East Asia

24 October 2019

News & Announcements

Coronavirus disease 2019 (COVID-19)

World Health Organization (WHO) Situation Report – 32 [February 21, 2020]

Situation in numbers

Total and new cases in last 24 hours

Globally: 76 769 confirmed (1021 new)

In China

75569 confirmed (894 new)

2239 deaths (118 new)

Outside of China

1200 confirmed (127 new)

26 countries

8 deaths

WHO RISK ASSESSMENT

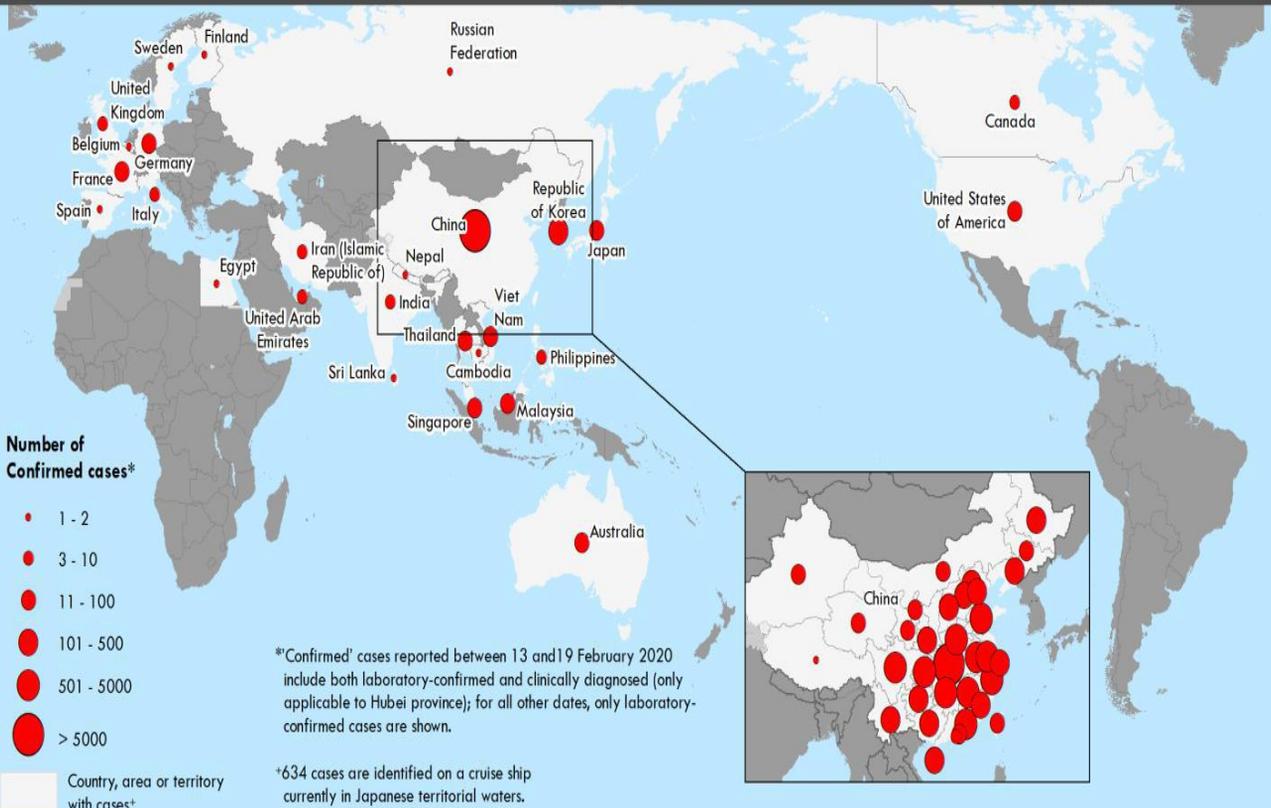
China Very High

Regional Level High

Global Level High



Distribution of COVID-19 cases as of 21 February 2020



Data Source: World Health Organization, National Health Commission of the People's Republic of China

Map Production: WHO Health Emergencies Programme

Not applicable

0 2,500 5,000 km

© World Health Organization 2020. All rights reserved.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

News & Announcements

International guidelines on how pharmacists should deal with the latest coronavirus outbreak issued by FIP

The roles that pharmacists in community, hospital and clinical biology can play in preventing the spread of the new coronavirus 2019-nCoV and supporting the efficient management of infection by healthcare systems are outlined in a new document published by the International Pharmaceutical Federation (FIP) today. The document was developed by an emergency taskforce set up by FIP following the World Health Organization's declaration that the outbreak of 2019-nCoV constitutes a public health emergency of international concern.

FIP's document, "Coronavirus 2019-nCoV outbreak: Information and interim guidelines for pharmacists and the pharmacy workforce", will be downloadable in the six official United Nations languages along with other resources on the FIP website. "Although the CPA guidance is aligned with characteristics particular to the system of pharmacy in China, it contains valuable expertise that can be used by pharmacists around the world, and it complements FIP's guidance for an international audience. The CPA has kindly agreed to share this document in English and Chinese through the FIP website,"

More Information

<https://www.fip.org/news?news=newsitem&newsitem=308>



FIP HEALTH ADVISORY

CORONAVIRUS 2019-nCoV OUTBREAK: Information and interim guidelines for pharmacists and the pharmacy workforce



MONTREAL
PSWC
22-27 May 2020

Montreal,
Canada

22-27 May
2020



**FIRST
REGISTRATION
DEADLINE:
20 FEBRUARY 2020**

**7th FIP
Pharmaceutical
Sciences
World Congress**

Forthcoming FIP events....

80th FIP World
Congress of Pharmacy
and Pharmaceutical
Sciences

The technological
revolution –
Impact on pharmacy
and health care

Seville, Spain
13 - 17 September 2020



fip
SEVILLE 2020
FIP WORLD CONGRESS
13 - 17 September



FIP Regional Conference for South East Asian and the Asian Pacific Region & PIT IAI 1 - 3 April 2020, Bali

FIP REGIONAL CONFERENCE

‘Achieving health for all:
Pharmacy optimising primary
health care through
digital technology’



Bali 2020
FIP REGIONAL CONFERENCE
SEAR & Asian Pacific Region
1-3 April



Save the Date

Bali, Indonesia
1 - 3 April 2020

FIP conference
in collaboration with the
Indonesian Pharmacist
Association (IAI)

Register here: http://www.iai.id/fip_pit2020

Compiled and published by

Dr P Ramalingam, Editor

Dr MohanRaj M Rathinavelu, Associate Editor

Dr G Sumalatha, Associate Editor

Supported by

Indian Pharmaceutical Association (IPA) - Anantapuramu Local Branch

IPA Local Branch office: Raghavendra Institute of Pharmaceutical Education & Research (RIPER)

Anantapuramu (Anantapur) district, Andhra Pradesh, India - 515721

DISCLAIMER

Although considerable efforts have been made to check the content in this *i-CARE* Bulletin, the editors, authors and publishers make no representation, express or implied, with regard to the accuracy of information contained in this publication and cannot accept any legal responsibility or liability for errors or omissions that may be made.