International Conference on "Combating Antimicrobial Resistance"

On the occasion of World Antimicrobial Awareness Week 2021, the International Conference on Combating Antimicrobial Resistance was organised between Nov 18 2021 and Nov 24 2021 by the Department of Infectious Diseases, Kasturba Medical College and Hospital, Manipal and Manipal Center for Infectious Diseases (MAC ID), Prasanna School of Public Health, MAHE, Manipal, in association with Division of Infectious Diseases, Wayne State University, Michigan, Detroit, USA; Departments of Microbiology and Medicine, Kasturba Medical College, Mangalore; Department of Pharmacy Practice, Manipal College of Pharmaceutical Sciences ,MAHE, Manipal and Department of Emergency Medicine, Kasturba Medical College and Hospital, Manipal. The conference was held over 5 days, and featured 11 speakers who deliberated on different aspects of antimicrobial resistance and stewardship. Their talks were all centred on this year's WAAW theme: 'Spread Awareness, Stop Resistance.' The conference was endorsed by the Clinical Infectious Diseases Society.

Inaugural function:

Dr Sharath Rao, Dean, KMC Manipal welcomed the gathering. Dr Kavitha Saravu, Organising Chair and Professor and Head of the Department of Kasturba Medical College, Manipal gave an overview about the conference. The chief guest for the program, Lt. Gen. (Dr) M D Venkatesh, Vice Chancellor, MAHE Manipal envisioned that Antimicrobial resistance has been declared as one of the top 10 public health threats to humanity by the World Health Organization, and is a very complex problem which requires a united multisectoral approach to address it. Dr Ramasubramanian, Senior Infectious Disease consultant, Apollo Hospitals, Chennai and the President of Clinical Infectious Diseases Society of India was the Guest of Honour. He urged all the institutional heads and policy makers to strengthen antimicrobial surveillance and ensure that the policies are practiced effectively. He also congratulated Dr Kavitha Saravu for organizing the conference and wished the best for the deliberations. Dr Sneha Deepak Mallya, Associate Professor of Community Medicine, proposed the vote of thanks.

Day 1:

18 November 2021

"Tackling MDR Gram Negatives"

Speakers:

1. Dr Kamini Walia, scientist-F, Program Officer, AMR, Division of Epidemiology and Communicable Diseases, ICMR, New Delhi
2. Dr Balaji Veeraraghavan, Professor, Department of Microbiology, Christian Medical College, Vellore
3. Dr Senthur Nambi, Infectious Diseases Physician, Apollo Hosital, Chennai

Dr Kamini Walia spoke on the burden of multidrug resistant organisms in India. She started her speech by clarifying basic definitions and concepts related to MDR, and briefly talked about AMR trends in India. She reported the inferences drawn from various recent studies, pertaining to the relation between MDR infections and mortality, and the cost of treatment of drug resistant infections. She ended her speech by saying that resistance among gram negative pathogens has risen to epidemic proportions, particularly within hospitals and acute care settings; and in order to reduce the burden of MDROs , steps must be taken to improve infection control, improve diagnostic stewardship, increase surveillance and strengthen and promote research on the matter.

Dr Balaji Veeraraghavan gave a talk on “Bench to Bedside: Integration of Microbiology Diagnostics in AMSP”. He stressed on the importance of an integrated approach, comprising diagnostic stewardship, antimicrobial stewardship and infection control practices to address antimicrobial resistance. He then moved on to describing the sensitivity, specificity and turnaround time of both, conventional and novel diagnostic modalities. Lastly, he spoke on susceptibility testing and reporting policies for better AMSP.

Dr Senthur Nambi, deliberated on the treatment of MDR Gram negatives through a case-based approach. He discussed a variety of cases and the factors influencing the selection of the appropriate medications. He also elucidated the different treatment options for MDR Gram negatives. On a concluding note, he stated that infection control can be attained by adopting a multi-pronged strategy to combat AMR; the prongs being: 1) Antimicrobial stewardship, 2) Source control and 3) Better diagnosis.

Day 2

19 November 2021

“Smarter Use of Antimicrobials for the Current Era”

Welcome note by: Dr Chandrashekar, Professor of Medicine, Chief, Division of Infectious Diseases, Wayne State University, Karmanos Cancer Center, Michigan

Speakers:

1. Dr Sanjay Revankar, Professor of Medicine, Fellowship program Director, Division of Infectious Diseases, Wayne State University, Karmanos Cancer Center, Michigan
2. Dr Mario Scipione, Clinical Pharmacist Specialist, Infectious Diseases, Detroit Medical Center, Michigan
3. Dr Teena Chopra, Professor of Medicine, Division of Infectious Diseases, Wayne State University, Corporate Med Director, Detroit Med Center, Michigan

Dr Sanjay Revankar delivered a speech on ‘Drug Resistance in Antifungal Stewardship’. He spoke about antifungals in candidiasis and drug resistance in candida species. He moved on to explaining the importance of antifungal stewardship, an emerging field. He also gave many recommendations for its effective implementation. He wrapped up his talk by stating how the increasing antifungal resistance is a unique challenge with many issues to address, for which antifungal stewardship is a necessity.

Dr Mario Scipione spoke on ‘Evolving Role of Clinical Pahrmacy as an Integral part of AMS ’. He briefly traced the history of Antimicrobial Stewardship. He then elaborated on how various aspects of AMS such as IV to PO conversions and comparisons, dose optimisation, rapid diagnostics and prospective audits and restricted formularies are all linked to clinical pharmacy. He also outlined the roles of pharmacy directors, hospital pharmacists and ASP pharmacists. He concluded by giving insights on the future of clinical pharmacy in ASP.

Dr Teena Chopra deliberated on the topic ‘Code Blue of AMS’. She enumerated the effects of antibiotic use during the COVID-19 pandemic. She gave detailed explanations on factors that both, increased and decreased the levels of AMR during the pandemic. Finally, she mentioned numerous measures that can be taken up in order to address AMR in the COVID-19 pandemic, namely; 1) targeted training to increase competence among healthcare workers, 2) ensuring the continuity of essential health services and regular supply of quality assured and affordable antimicrobials, 3)

reducing the turnaround time of COVID-19 testing, 4) Exercising caution in the use of biocodes and 5) Addressing gaps in research.

Day 3

22 November 2021

"Combating Antimicrobial Resistance Optimizing Prescriptions"

Welcome note by: Dr Suchitra Shenoy, Professor and Head, Department of Microbiology, Kasturba Medical College and Hospital, Ambedkar Circle, Mangalore

Speakers:

1. Dr Pooja Rao, Associate Professor of Microbiology and Infection Control Officer, Kasturba Medical College and Hospital, Ambedkar Circle, Mangalore
2. Dr Dattatray Prabhu, Associate Professor of Anaesthesia, Critical Care Physician, Kasturba Medical College and Hospital, Mangalore
3. Dr Shafir Kasim , Assistant Professor of Medicine, Infection Control Officer, Kasturba Medical College, Attavar, Mangalore

Dr Pooja Rao gave an overview on glycopeptide resistance in gram positive cocci. She explained the risk factors, modes of transmission, mechanism of action and the genetic basis of vancomycin resistance in gram positive cocci, particularly enterococci. She then spoke on the treatment options for vancomycin resistant organisms. She also mentioned newer glycopeptide antibiotics such as telavancin, dalbavancin and oritavancin and their current role in fighting glycopeptide resistance. Her closing remarks were that the prevalence of drug resistance is bound to increase with irrational use of antibiotics; and that restricting the usage of antibiotics and strictly enforcing antibiotic stewardship programs are vital steps that have to be taken in order to curb AMR.

Dr Dattatray Prabhu spoke on treatment options for MRSA infections. He stressed on the importance of early identification of MRSA and stated that the development of new molecular and immunochromatographic testing technologies have the potential to dramatically shorten delays to diagnosis and treatment of MRSA infections. He gave an account of the novel antibiotics that have become available to provide effective alternatives for strains that have acquired resistance to existing drugs. He concluded by highlighting the fact that even though these advantages do not preclude the need for vigilance and effective MRSA prevention strategies, they help mitigate some of the challenges associated with MRSA bacteraemia treatment.

Dr Shafir Kasim enlightened the audience with his talk on 'Outpatient antimicrobial stewardship: Opportunities and Barriers'. He gave an overview on patient barriers, doctor barriers and commercial barriers. He spoke on the various challenges in implementing stewardsip such as competition among doctors, time constraints, minimal supporting facilities and poor enforcement of regulations. He finished his speech by describing various sustainability measures (such as ensuring the availability of microbiological culture facilities, the use of incentives, following universal antibiotic policies and a robust feedback system) that can be taken up to implement the elements of antimicrobial stewardship effectively.

Day 4

23 November 2021

"Antimicrobial Stewardship in Critical Care"

Welcome note by: Dr Kavitha Saravu, Professor and Head, Department of Infectious Diseases, KMC, Manipal.

Speakers:

1. Dr Jason Roberts, consultant clinical pharmacist, Royal Brisbane and Women's Hospital and Research Chair, University of Queensland Centre for Clinical Research
2. Dr Muralidhar Varma, Associate Professor, Department of Infectious Diseases, Kasturba Medical College and Hospital, Manipal and Chairman, HICC, Kasturba Medical College and Hospital

Dr Jason Roberts spoke on the topic 'Optimising Antibiotic Dosing in ICU'. He discussed the various challenges with antimicrobial dosing and the advantages of pharmacokinetic and pharmacodynamic considerations in critical care. He also talked about the relevance of Augmented Renal Clearance, Renal Replacement Therapy and ECMO in clinical practice. He briefly discussed the following options for dose optimisation to achieve PK/PD targets: 1) Unit-level Interventions 2) Dosing nomograms for individual patients 3) Dosing software and 4) Therapeutic drug monitoring. He ended his speech by reiterating that the understanding of pharmacokinetics can assist dose optimisation as clear concentration-effect relationships exist for antibiotics.

Dr Muralidhar Varma discussed Antimicrobial Stewardship via a case based approach. He recounted several interesting case scenarios and brought out key messages that were to be learnt from each of these scenarios. He emphasised The Four Moments of Antibiotic Decision Making i.e. : 1) Making the Diagnosis 2) Cultures and Empiric therapy 3)Stop, narrow ,change to oral route and 4) Determining the duration of treatment. And finally, he talked about the importance of working as a team in order to optimize clinical outcomes.

Day 5:

24 November 2021

Antimicrobial Quiz- The Grand Finale

Quizmasters:

1. Dr Nitin Gupta ,Assistant Professor, Department of Infectious Disease, KMC, Manipal
2. Dr Prithvishree Ravindra, Assistant Professor, Department of Emergency Medicine, KMC, Manipal

This national level antimicrobial quiz comprised of 4 rounds. It was indeed a splendid clash between razor sharp brains…. a spectacular battle of the wits right from the beginning all the way till the end. After an hour's worth of challenging interrogations, nail-biting twists and extremely close competition, Dr Ankit Mittal emerged the winner, and Dr. Siddarth Sadhnani the runner up.

The conference concluded with a valedictory function with Dr Kavitha Saravu congratulating the winners of various competitions. She also expressed her gratitude to all who helped in organising the conference and contributed to its success.

Going Blue for #AMR

#WAAW

In the light of this year's WAAW theme (i.e. Spread Awareness, Stop Resistance); individuals, workplaces and communities were invited by the World Health Organization to join a colour campaign to spread awareness on AMR. Light blue was chosen as the colour of AMR Awareness by WHO. It symbolises health across sectors, and the multisectoral collaborative effort that is required to address this universal threat; and also represents the multitude of individuals and communities who are both, affected by AMR and whose actions have the power to curb the issue of AMR.

Kasturba Medical College,Manipal contributed to spreading awareness on AMR by lighting up the campus in blue on 24th November 2021. Indeed, it was quite a spectacular sight!


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Manipal College of Pharmaceutical Sciences, MAHE, Manipal, India
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Kasturba Medical College, Mangalore, MAHE, Manipal, India
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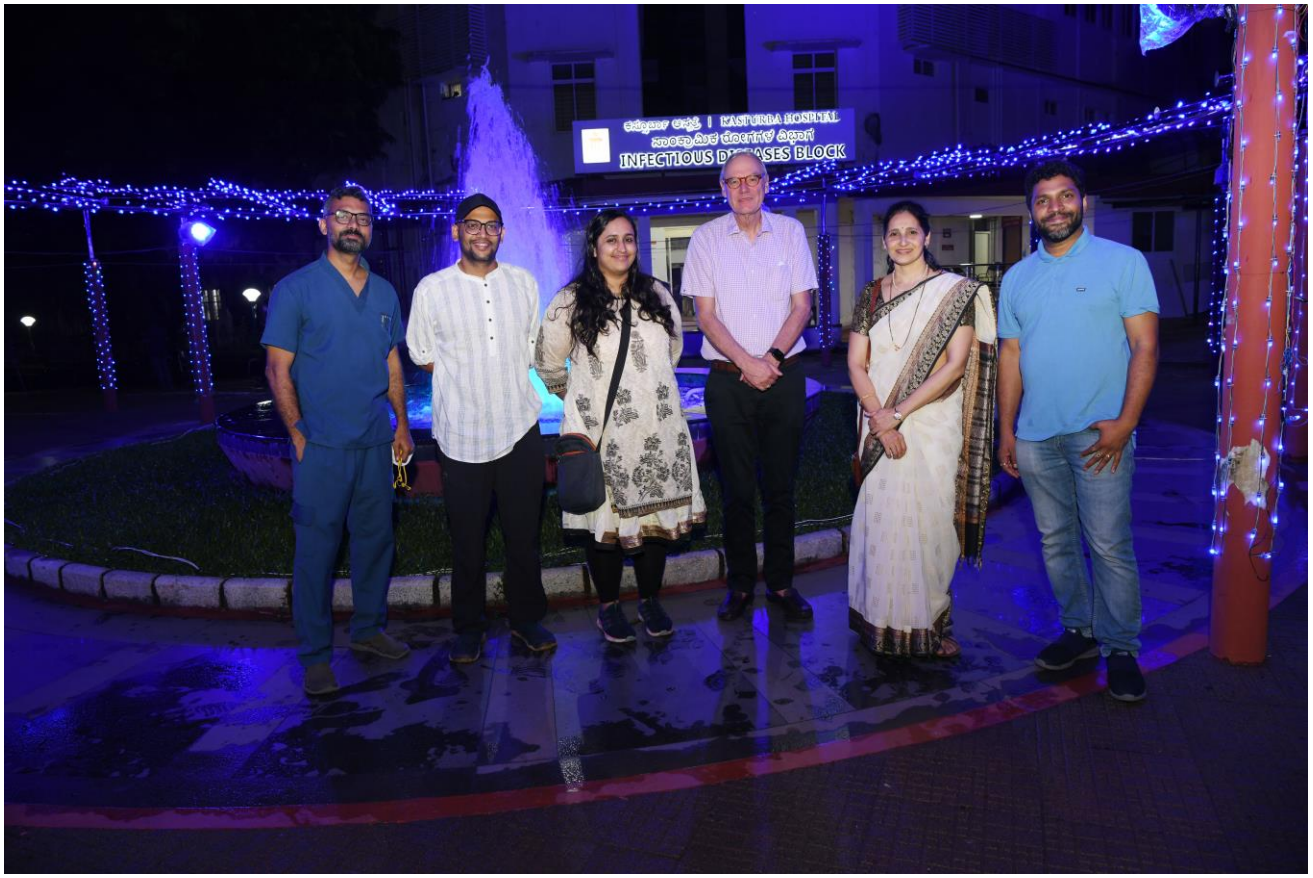
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