

PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Centre for Allied Health Sciences, AIMS, Cochin
Course Name: Paper VI- General Medicine, General Surgery, Pediatrics
Teaching Faculty: Dr Nandita
Course Program: Bachelor of Science Physician Assistant
Type: Modernised

Nature: Compulsory
No. of Hours: 05 Hours
No. of Students: 12
Semester: Third
Course Code: BPA21

SYLLABUS

- ✓ Antimicrobial resistance – Mechanisms in brief.
- ✓ AMR burden in the global and national level, Surveillance strategies, Existing AMR surveillance systems.
- ✓ Multidrug resistant nosocomial pathogens: MRSA, VRE, ESBL-producers, Carbapenemase producers.
- ✓ Transmission of antimicrobial resistance in the nosocomial setting and Hospital Infection control
- ✓ Overview of antimicrobial susceptibility testing
- ✓ Introduction to Antimicrobial stewardship.

RECOMMENDED BOOKS (REFERENCE BOOKS/TEXT BOOKS):

1. Manual of Infection Prevention and control – NizamDamani
2. Antimicrobial Drug Resistance Douglas L Mayer
3. Apurba Sastry & Deepashree's Essentials of Hospital Infection Control
4. Harrison's Principles of Internal Medicine
5. Katzung Basic and Clinical Pharmacology 14th Edition

EVALUATION SCHEME & COMPONENTS:

- ✓ Sessional exams
- ✓ End term assessment

TEACHING METHODOLOGY

- ✓ Lecture



SCOPE AND OBJECTIVES

- ✓ -To educate them on the need for containment of AMR
- ✓ -Develop skills to understand their responsibility to combat AMR through judicious handling of antimicrobials and infection control practices.



PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: A course on AMR
Teaching Faculty: Faculty of nursing, infection control nurses
Course Program: Bachelors in Nursing
Type: New

Nature: Compulsory
No. of Hours: 15 Hours
No. of Students: 100
Semester: 4th year
Course Code: BSN404AMR

SYLLABUS

- ✓ Basics of antimicrobial therapy and AMR
- ✓ AMR – Prevention / reduction
- ✓ Hospital acquired infections
- ✓ IPC in infectious diseases
- ✓ Surveillance in AMR
- ✓ Antimicrobial stewardship



TEACHING METHODOLOGY

- ✓ Lecture
- ✓ Power point presentations
- ✓ Chalk-board method
- ✓ Assignments
- ✓ Discussion



RECOMMENDED READING MATERIALS (TEXTBOOKS/WEBSITES/REFERENCE BOOKS/ORIGINAL PAPERS AND REVIEW ARTICLES FROM JOURNALS)

- ✓ WHO competency framework for health workers' education and training on antimicrobial resistance. Geneva: World Health Organization; 2018 (WHO/HIS/HWF/AMR/2018.1). Licence: CC BY-NC-SA 3.0 IGO
- ✓ Ananthanarayan R. Ananthanarayan and Paniker's textbook of microbiology. Orient Blackswan; Prithvi books; 11th edn 2020
- ✓ Sastry AS, Bhat S. Essentials of medical microbiology. Jaypee Brothers, Medical Publishers Pvt. Limited; 2018 Oct 31.
- ✓ Fauci AS, Kasper DL, Hauser SL, Jameson JL, Loscalzo J. Harrison's principles of internal medicine. Longo DL, editor. New York: McGraw-hill; 2012.
- ✓ Katzung BG. Basic and clinical pharmacology. Mc Graw Hill; 2012.

SCOPE AND OBJECTIVES

On completion of the course, the students

- ✓ explain basic knowledge on effective antimicrobial therapy and AMR.
- ✓ describe the role of bedside nursing in preventing / reducing AMR.
- ✓ describe the guidelines in the management of hospital acquired infections.
- ✓ illustrate Infection Prevention and Control (IPC) practices in the therapeutic management of infectious diseases.
- ✓ Describe principles and processes of surveillance of AMR.
- ✓ Explain the role of nurses in antimicrobial stewardship.
- ✓ communicate effectively with individuals and groups, and members of the health team regarding AMR.
- ✓ demonstrate skills in teaching individuals and groups in varying health settings regarding effective antimicrobial therapy.

EVALUATION PATTERN:

Pre post assessment

PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Centre for Allied Health Sciences, AIMS, Cochin
Course Name: Applied Sciences-1
Teaching Faculty: Dr. Nandita and Dr. Sanjeev K Singh
Course Program: Bachelor of Science Respiratory Therapy
Type: Modernised

Nature: Compulsory
No. of Hours: 05 Hours
No. of Students: 10
Semester: 2nd year
Course Code: RPT23

SYLLABUS

- ✓ Antimicrobial resistance – Mechanisms in brief.
- ✓ AMR burden in the global and national level, Surveillance strategies, Existing AMR surveillance systems.
- ✓ Multidrug resistant nosocomial pathogens: MRSA, VRE, ESBL-producers, Carbapenemase producers.
- ✓ Transmission of antimicrobial resistance in the nosocomial setting and Hospital Infection Control
- ✓ Overview of antimicrobial susceptibility testing
- ✓ Introduction to Antimicrobial stewardship
- ✓ Hospital infection control.

RECOMMENDED BOOKS (REFERENCE BOOKS/TEXT BOOKS):

- ✓ Manual of Infection Prevention and control – NizamDamani
- ✓ Antimicrobial Drug Resistance Douglas L Mayer
- ✓ ApurbaSastry & Deepashree's Essentials of Hospital Infection Control
- ✓ Harrison's Principles of Internal Medicine
- ✓ Katzung Basic and Clinical Pharmacology 14th Edition

EVALUATION SCHEME & COMPONENTS:

- ✓ Sessional exams
- ✓ End term assessment



TEACHING METHODOLOGY

- ✓ Lecture

SCOPE AND OBJECTIVES

- ✓ Due to the accelerated emergence of AMR specific actions from various stakeholders like respiratory therapists, public health professionals and physician assistants are necessary.
- ✓ These health professionals with their association with the patients and their role in infection control are a part of a multi-disciplinary team and one of the most appropriate groups to combat AMR



COURSE LEARNING OUTCOME:

Upon completion of this course it is expected that students shall be able to:

- ✓ To educate them on the need for containment of AMR
- ✓ Develop skills to understand their responsibility to combat AMR through judicious handling of antimicrobials and infection control practices.

PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Pharmacy Practice Theory
Teaching Faculty: Clinical Pharmacist
Course Program: Bachelors in Pharmacy
Type: Modernised

Nature: Compulsory
No. of Hours: 02 Hours
No. of Students: 60
Semester: Seven
Course Code: BP703T

SYLLABUS

- ✓ Definition of Antimicrobial resistance, Overview on resistance mechanisms, AMR surveillance system
- ✓ Introduction to GLAS, AMR burden in the global and national level, consequences of AMR
- ✓ Strategies developed to overcome AMR, Concepts of GAP, NAP and KARSAP
- ✓ Guidelines on AMR, role of pharmacists in preventing AMR
- ✓ Introduction to antimicrobial Stewardship

TEACHING METHODOLOGY

- ✓ Power point presentations
 - ✓ Lecture
- ✓ Chalk Board Method



RECOMMENDED MATERIAL

- ✓ Reygaert WC. An overview of the antimicrobial resistance mechanisms of bacteria. AIMS Microbiol. 2018;4(3):482–501. Published 2018 Jun 26. doi:10.3934/microbiol.2018.3.482.

https://www.who.int/medicines/areas/rational_use/AMR_Surveillance/en/

- ✓ <https://www.who.int/glass/en/>
- ✓ WHO Global action plan on AMR, National Action Plan on AMR, Kerala State Action Plan on AMR



SCOPE AND OBJECTIVES

Antimicrobial resistance (AMR) is a global health challenge and developing countries are more vulnerable to the -adverse health impacts of AMR. This training on risk management and prevention of antibiotic resistance help them to understand their potential role in improving AMR.

- ✓ Understand the basic concepts of antimicrobial resistance, the urge to contain AMR, its impact in the society, various strategies adopted on a global and national basis to overcome the AMR



EVALUATION PATTERN

- ✓ Internal assessment
- ✓ End semester exam



PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Microbiology
Teaching Faculty: Faculty of Microbiology
Course Program: Bachelors in Dental Surgery
Type: Modernised

Nature: Compulsory
No. of Hours: 05 Hours
No. of Students: 60
Semester/Year: Second Year
Course Code: D1GPM

SYLLABUS

- ✓ Burden of antimicrobial resistance:
- ✓ Mechanisms of antibiotic resistance: Antibiotic susceptibility testing: Infection control
- ✓ Antimicrobial stewardship
- ✓ MOOC



TEACHING METHODOLOGY

- ✓ Power point presentations
- ✓ Lecture



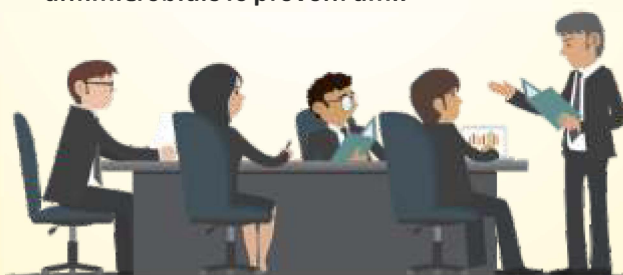
RECOMMENDED MATERIAL

- ✓ Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases
- ✓ Apurba Sastry and Deepashree's Essentials of Hospital Infection Control
- ✓ Ananthanarayanan & Paniker's Textbook of Microbiology
- ✓ Harrison's Principles of Internal Medicine
- ✓ IDSA guidelines



SCOPE AND OBJECTIVES

- ✓ In dentistry, antibiotics are prescribed for the treatment of odontogenic infections, especially endodontic infections, and prophylaxis of local and systemic spread.
- ✓ Studies report that 15% of the dentists prescribe antibiotics daily and many prescriptions have proven to be unnecessary potentially aiding the emergence of resistance.
- ✓ The proposed module would help young dental professionals understand the magnitude of burden of amr and their role in the rational use of antimicrobials to prevent amr.



EVALUATION PATTERN

- ✓ Online/offline tests
- ✓ Assignments



PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: General and dental pharmacology and therapeutics
Teaching Faculty: Faculty of Pharmacology
Course Program: Bachelors in Dental Surgery
Type: Modernised

Nature: Compulsory
No. of Hours: 07 Hours
No. of Students: 60
Semester/Year: Second Year
Course Code: D1GDP

SYLLABUS

- ✓ General considerations in antimicrobial chemotherapy: bactericidal and bacteriostatic antibiotics, pharmacokinetics.
- ✓ Classes of antibiotics: cell-wall acting - beta lactams, glycopeptides. Polymyxins. linezolid. Quinolones, sulfonamides, miscellaneous agents.



TEACHING METHODOLOGY

- ✓ Power point presentations
- ✓ Lecture



RECOMMENDED MATERIAL

- ✓ Harrison's principles of internal medicine
- ✓ Katzung basic and clinical pharmacology 14th edition
- ✓ Idsa guidelines
- ✓ www.uptodate.com



SCOPE AND OBJECTIVES

- ✓ In dentistry, antibiotics are prescribed for the treatment of odontogenic infections, especially endodontic infections, and prophylaxis of local and systemic spread.
- ✓ Studies report that 15% of the dentists prescribe antibiotics daily and many prescriptions have proven to be unnecessary potentially aiding the emergence of resistance.
- ✓ The proposed module would help young dental professionals understand the magnitude of burden of AMR and their role in the rational use of antimicrobials to prevent AMR.

EVALUATION PATTERN

- ✓ Online/offline tests
- ✓ Assignments





PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: AMR and role of antimicrobial stewardship
Teaching Faculty: Ms Anila K.N
Course Program: Master of Pharmacy
Type: New

Nature: Compulsory
No. of Hours: 15 Hours
No. of Students: 07
Semester: Third
Course Code: MPP302C

SYLLABUS

- ✓ Definition of Antimicrobial resistance
- ✓ Overview on resistance mechanisms
- ✓ AMR surveillance system
- ✓ Introduction to GLASS
- ✓ AMR burden in the global and national level
- ✓ Consequences of AMR
- ✓ Strategies developed to overcome AMR
- ✓ Concepts of GAP,NAP and KARSAP, WHO guidelines on AMR
- ✓ Antimicrobial Stewardship



TEACHING METHODOLOGY

- ✓ Power point presentations
- ✓ Chalk-board method
- ✓ Problem solving methods
- ✓ Lecture

RECOMMENDED MATERIAL

- ✓ Reygaert WC. An overview of the antimicrobial resistance mechanisms of bacteria. AIMS Microbiol. 2018;4(3):482–501. Published 2018 Jun 26. doi:10.3934/microbiol.2018.3.482.
https://www.who.int/medicines/areas/rational_use/AMR_Surveillance/en/
- ✓ <https://www.who.int/glass/en/>
- ✓ WHO Global action plan on AMR, National Action Plan on AMR, Kerala State Action Plan on AMR
- ✓ Global Antibiotic Resistance Partnership
(https://www.cddep.org/wp-content/uploads/2017/06/india-report-web_8.pdf)

SCOPE AND OBJECTIVES

Antimicrobial resistance (AMR) is a global health challenge and developing countries are more vulnerable to the adverse health impacts of AMR. Studies shows that pharmacists play a key role in improving the antimicrobial resistance.

This training enables them to understand their potential role in improving AMR and

help them to develop expertise in rational use of antimicrobials. Upon completion of this course it is expected that students shall be able to

- ✓ Understand the basic concepts of antimicrobial resistance, its impact on various levels in the society and current strategies adopted on global and national level to contain AMR
- ✓ Identify existing gaps in the systems to prevent AMR

EVALUATION PATTERN

- ✓ 1 credit will be awarded on the completion of entire 15 hours theoretical training



PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Microbiology
Teaching Faculty: Dr. Sanjeev K Singh
Course Program: Bachelors in Medicine and Surgery (MBBS)
Type: Modernised

Nature: Compulsory
No. of Hours: 06 Hours
No. of Students: 100
Year: Second
Course Code: 2MB.MI

SYLLABUS

- ✓ Mechanisms of antibiotic resistance: impaired drug entry, drug inactivation, target alteration. Multidrug resistance.
- ✓ Horizontal transfer of drug resistance: insertion sequences, transposons, integrons. Transformation, Transduction, Conjugation



TEACHING METHODOLOGY

- ✓ Power point presentations
 - ✓ Lecture
- ✓ Chalkboard Method



RECOMMENDED MATERIAL

- ✓ Manual of Infection Prevention and control – NizamDamani
- ✓ Antimicrobial Drug Resistance Douglas L Mayer
- ✓ ApurbaSastry & Deepashree's Essentials of Hospital Infection Control
- ✓ Harrison's Principles of Internal Medicine
- ✓ Katzung Basic and Clinical Pharmacology 14th Edition
- ✓ IDSA guidelines



EVALUATION PATTERN

- ✓ Offline examinations
- ✓ Assignments

SCOPE AND OBJECTIVES

- ✓ Inappropriate antimicrobial prescriptions - major factor contributing to AMR
- ✓ Junior or newly qualified doctors - large prescribing group and most mobile workforce
- ✓ To train medical students and to positively influence their knowledge, attitudes, and behaviour with regard to antibiotic prescription practices.





AMRITA
VISHWA VIDYAPEETHAM

PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Pharmacology
Teaching Faculty: Faculty of Pharmacology
Course Program: Bachelors in Medicine and Surgery (MBBS)
Type: Modernised

Nature: Compulsory
No. of Hours: 10 Hours
No. of Students: 100
Year: Second
Course Code: 2MB.PH

SYLLABUS

- ✓ Classification by mechanism of Action, Bactericidal and Bacteriostatic agents
- ✓ Cell wall active agents : penicillins, Penicillinase inhibitors, Cephalosporins, Carbapenems, glycopeptides
- ✓ Anti-tubercular drugs, anti-protozoal, antihelminthic drugs



TEACHING METHODOLOGY

- ✓ Power point presentations
 - ✓ Lecture
- ✓ ChalkBoard Method



RECOMMENDED MATERIAL

- ✓ Manual of Infection Prevention and control – NizamDamani
- ✓ Antimicrobial Drug Resistance Douglas L Mayer
- ✓ ApurbaSastry & Deepashree's Essentials of Hospital Infection Control
- ✓ Harrison's Principles of Internal Medicine
- ✓ Katzung Basic and Clinical Pharmacology 14th Edition
- ✓ IDSA guidelines



EVALUATION PATTERN

- ✓ Offline examinations
- ✓ Assignments

SCOPE AND OBJECTIVES

- ✓ Inappropriate antimicrobial prescriptions – major factor contributing to AMR
- ✓ Junior or newly qualified doctors – large prescribing group and most mobile workforce
- ✓ To train medical students and to positively influence their knowledge, attitudes, and behaviour with regard to antibiotic prescription practices.
- ✓ This targeted educational program enables them to appropriately prescribe antimicrobials and to gain an understanding of antimicrobial resistance (AMR)





PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Clerkship Activity
Teaching Faculty: Ms Anila KN
Course Program: Doctor of Pharmacy - REGULAR
Type: New

Nature: Compulsory
No. of Hours: 15 Hours
No. of Students: 30
Year: Fifth
Course Code: PD 5.6

SYLLABUS

- ✓ Introduction to Antimicrobial resistance
- ✓ Strategies to combat AMR
- ✓ Role of clinical pharmacist
- ✓ Antimicrobial Stewardship
- ✓ Guidelines for appropriate use of antimicrobials based on common focus of infections



TEACHING METHODOLOGY

- ✓ Power point presentations
- ✓ Chalk-board method
- ✓ Problem solving methods
- ✓ Bedside Training
- ✓ Lecture

RECOMMENDED MATERIAL

- ✓ Reygaert WC. An overview of the antimicrobial resistance mechanisms of bacteria. AIMS Microbiol. 2018;4(3):482–501. Published 2018 Jun 26. doi:10.3934/microbiol.2018.3.482.
- https://www.who.int/medicines/areas/rational_use/AMR_Surveillance/en/
- ✓ https://www.who.int/glass/en/
- ✓ WHO Global action plan on AMR, National Action Plan on AMR, Kerala State Action Plan on AMR
- ✓ Global Antibiotic Resistance Partnership (https://www.cddep.org/wp-content/uploads/2017/06/india-report-web_8.pdf)



SCOPE AND OBJECTIVES

Antimicrobial resistance (AMR) is a global health challenge and developing countries are more vulnerable to the adverse health impacts of AMR. Studies shows that pharmacists play a key role in improving the antimicrobial resistance. Upon completion of this course it is expected that students shall be able to

- ✓ Understand the basic concepts of antimicrobial resistance, its impact on various levels in the society and current strategies adopted on global and national level to contain AMR
- ✓ Identify existing gaps in the systems to prevent AMR
- ✓ Understand the need of strategies like Antimicrobial Stewardship (ASP).

EVALUATION PATTERN

- ✓ Power point presentation
- ✓ with Oral VIVA



AMRITA
VISHWA VIDYAPEETHAM

PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Clerkship Activity
Teaching faculty: Ms Anila KN
Course Program: Post Baccalaureate Studies in Pharmacy
Type: New

Nature: Compulsory
No. of Hours: 15 Hours
No. of Students: 10
Semester: Second
Course Code: PD.PB 2.8

SYLLABUS

- ✓ Introduction to Antimicrobial resistance
- ✓ Strategies to combat AMR
- ✓ Role of clinical pharmacist
- ✓ Antimicrobial Stewardship
- ✓ Guidelines for appropriate use of antimicrobials based on common focus of infections



TEACHING METHODOLOGY

- ✓ Power point presentations
- ✓ Chalk-board method
- ✓ Problem solving methods
- ✓ Lecture

RECOMMENDED MATERIAL

- ✓ Reygaert WC. An overview of the antimicrobial resistance mechanisms of bacteria. AIMS Microbiol. 2018;4(3):482–501. Published 2018 Jun 26. doi:10.3934/microbiol.2018.3.482.
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SCOPE AND OBJECTIVES

Antimicrobial resistance (AMR) is a global health challenge and developing countries are more vulnerable to the adverse health impacts of AMR. Studies shows that pharmacists play a key role in improving the antimicrobial resistance. Upon completion of this course it is expected that students shall be able to

- ✓ Understand the basic concepts of antimicrobial resistance, its impact on various levels in the society and current strategies adopted on global and national level to contain AMR
- ✓ Identify existing gaps in the systems to prevent AMR
- ✓ Understand the need of strategies like Antimicrobial Stewardship (ASP).

EVALUATION PATTERN

- ✓ Power point presentation
- ✓ Oral Questions and Answers

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PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Antimicrobial stewardship to curb AMR theory
Teaching Faculty: Faculty from Internal Medicine, Microbiology & Clinical Pharmacy
Course Program: Post Baccalaureate Studies in Pharmacy
Type: New

Nature: Compulsory
No. of Hours: 416 Hours
No. of Students: 10
Semester: Third
Course Code: PD.PB 3.1

SYLLABUS

- ✓ Overview on common HAIs including CRE, VRE, MRSA, LRE, Colistin resistance, candida auris
- ✓ Advanced antimicrobial stewardship practices
- ✓ Overcoming the challenges in antimicrobial stewardship
- ✓ Antitubercular stewardship, introduction to antifungal stewardship, diagnostic stewardship, outpatient stewardship



TEACHING METHODOLOGY

- ✓ Power point presentations
- ✓ Chalk-board method
- ✓ Problem solving methods
- ✓ Lecture + Internship



RECOMMENDED MATERIAL

- ✓ Reygaert WC. An overview of the antimicrobial resistance mechanisms of bacteria. AIMS Microbiol. 2018;4(3):482–501. Published 2018 Jun 26. doi:10.3934/microbiol.2018.3.482.

https://www.who.int/medicines/areas/rational_use/AMR_Surveillance/en/

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SCOPE AND OBJECTIVES

Antimicrobial resistance (AMR) is a global health challenge and developing countries are more vulnerable to the adverse health impacts of AMR. Studies shows that pharmacists play a key role in improving the antimicrobial resistance. Upon completion of this course it is expected that students shall be able to

- ✓ Understand the basic concepts of antimicrobial resistance, its impact on various levels in the society and current strategies adopted on global and national level to contain AMR
- ✓ Identify existing gaps in the systems to prevent AMR
- ✓ Understand the need of strategies like Antimicrobial Stewardship (ASP).

EVALUATION PATTERN

- ✓ Internal Assessment
- ✓ Pre Post MCQ



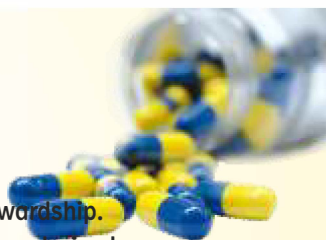
PREVENT IT CURRICULA @AMRITA VISHWA VIDYAPEETHAM

College Name: Amrita Institute of Medical Sciences
Course Name: Antimicrobial Stewardship theory (part2)
Teaching Faculty: Faculty from Internal Medicine, Microbiology & Clinical Pharmacy
Course Program: Doctor of Pharmacy - REGULAR
Type: New

Nature: Compulsory
No. of Hours: 416 Hours
No. of Students: 30
Semester: Sixth
Course Code: PD 6.1

SYLLABUS

- ✓ Overview on common HAIs including CRE, VRE, MRSA, LRE, Colistin resistance, candida auris
- ✓ Advanced antimicrobial stewardship practices
- ✓ Overcoming the challenges in antimicrobial stewardship
- ✓ Antitubercular stewardship, introduction to antifungal stewardship.
- ✓ ASP matrices includes DDD, Length of stay, Cost benefit analysis, de-escalation rates, mortality rate, empiric to targeted conversion
- ✓ Orientation on qualitative and quantitative research studies to prevent AMR, PESTEL aspects to prevent AMR



TEACHING METHODOLOGY

- ✓ Power point presentations
- ✓ Chalk-board method
- ✓ Problem solving methods
- ✓ Lecture + Internship



RECOMMENDED MATERIAL

- ✓ Reygaert WC. An overview of the antimicrobial resistance mechanisms of bacteria. AIMS Microbiol. 2018;4(3):482–501. Published 2018 Jun 26. doi:10.3934/microbiol.2018.3.482.

https://www.who.int/medicines/areas/rational_use/AMR_Surveillance/en/

- ✓ <https://www.who.int/glass/en/>
- ✓ WHO Global action plan on AMR, National Action Plan on AMR, Kerala State Action Plan on AMR
- ✓ Global Antibiotic Resistance Partnership (https://www.cddep.org/wp-content/uploads/2017/06/india-report-web_8.pdf)



SCOPE AND OBJECTIVES

Antimicrobial resistance (AMR) is a global health challenge and developing countries are more vulnerable to the adverse health impacts of AMR. Studies shows that pharmacists play a key role in improving the antimicrobial resistance. Upon completion of this course it is expected that students shall be able to

- ✓ Understand the basic concepts of antimicrobial resistance, its impact on various levels in the society and current strategies adopted on global and national level to contain AMR
- ✓ Identify existing gaps in the systems to prevent AMR
- ✓ Understand the need of strategies like Antimicrobial Stewardship (ASP).

EVALUATION PATTERN ✓ Internal Assessment