



Medical Entomology and its teaching institutions in India

Introduction

Medical Entomology (ME) education is related to the details of insects, arthropods, mosquito vectors, mites, and ticks, and its effect of cause and transmit of disease on human, animals and vector control. It gave keen knowledge about dengue fever and its severity. [1] It is most important subject to understand and prevent Vector-Borne Infectious Diseases. As per the report of National Centre for Vector-Borne Diseases Control the number of dengue cases in India as on the year 2024 was 2,33,400 and death was 236. ME teaches in many institutions in India. [2–3] ME subject is very important and essential in the modern world. ME subject available institutions in India. [4] ME discipline education is needed in school level. Medical Entomologist posts are mandatory in medical colleges. ME is an important and essential subject in medical curriculum in India. [5–7] Medical Entomologists were suggested “There is a wide gap in demand and supply of Medical Entomologists in India by demand analysis”. [8] In this article, I have to explain and to give important messages about the teaching of medical entomology institutions.

Medical Entomology institutions in India

Many State and Union government institutions are there in India. [4, 9] Research papers are many in that subject. Pathogenic Microorganism like virus, bacterium, parasite are actively transmitted by vectors from one vertebrate to another when they suck the blood for their food. Medical Entomology (ME) is focused related to insects, arthropods and its impact on human health. [10]

Vector Control Research Centre (VCRC) Pondicherry: VCRC was established at Pondicherry (now Puducherry) in July 1975. Its vision is “Vector-Borne disease-free India”. In this research institute two courses are available: M.Sc. in Public Health Entomology (PHE) and Ph.D in Medical Entomology. There are two training workshop series on Vectors And VBDs. (a). ICMR-VCRC Training Workshop Series on Ticks, and (b).ICMR-VCRC Training

Workshop Series on Mites. [11]

Malla Reddy Vishwavidyapeeth, Hyderabad:

A post graduate degree M.Sc. in Medical Entomology designed and to train professionals in insects, ticks, and other arthropods that impact human health. [12] The curriculum covers insect biology, taxonomy, ecology, disease transmission, vector control, and related fields. Students gain practical experience through laboratory work, field studies, and internships, preparing them for diverse careers in medical entomology. By this the graduates have to pursue their further higher studies (or) by research in ME plenty of job opportunities in global level.

Manipal Institute of Virology:


This institute has run a course related to medical entomology. VBDs contribute to the majority of infectious diseases. It deals with Dengue, malaria, chikungunya, Japanese encephalitis, kala-azar and filariasis cause significant disease and socio-economic burdens, particularly in the rural area. Surveillance of these VBDs plays an important role in the control and prevention of the diseases. Identifying of vectors and its control enables to disrupt of the transmission cycle thereby controlling the spread in the community.

The Learning Objectives of this course:

- “(a). To understand the transmission cycle of important VBDs of India and its host adaptations.
- (b). To familiarize the morphological identification classification techniques of arthropods.
- (c). To understand the molecular and immunological tools for VBD detection in vectors.”

So may other institutes be there in the teaching of medical entomology in India. Medical education Entomology and its related research knowledge is very important and essential one in medical education and in the NMC curriculum also. [14]

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Conclusion

From this, I have concluded that medical entomology gave keen knowledge and research ideas about insects, mosquitoes and human health. ME discipline education is needed in school level. Medical Entomologist posts as Tutors, Assistant Professors, Associate Professors and Professors in medical entomology are to be mandatory in medical colleges by national Medical Council. ME is an important and essential subject in medical curriculum in India.

References

1. World Health Organization: Vector Control. Available from: https://iris.who.int/bitstream/handle/10665/42498/WHO_CDS_CPE_SMT_2001.14.pdf;sequence=1 [Last Accessed on: 25th December 2024]
2. National Centre for Vector borne Diseases Control: Dengue Situation in India. Available from: <https://ncvdc.mohfw.gov.in/index4.php?lang=1&level=0&linkid=431&lid=3715> [Last Accessed on: 26th December 2024]
3. Sureshbabu J. Present scenario on dengue disease in various states of India. Int J Med Sci and Nurs Res 2023;3(4):1–3. DOI: <https://doi.org/10.55349/ijmsnr.20233413>
4. National Government Services Portal. Available from: <https://services.india.gov.in/service/detail/search-colleges-and-courses-recognised-by-national-medical-commission> [Last Accessed on: 26th December 2024]
5. Sureshbabu J, Vasudevan S, Raj P. A Study of the effectiveness of school health education programs on selected mosquito ore diseases: School based Cross-Sectional Study. Int J Res Med Sci 2017;5(6):2728-2733. DOI: <http://dx.doi.org/10.18203/2320-6012.ijmsnr20172478>
6. Sureshbabu J. A View on Medical Entomology and its importance in the medical fields. Int J Med Sci and Nurs Res 2022;2(3):1–3. DOI: <https://doi.org/10.55349/ijmsnr.20222312>
7. Sureshbabu J. Medical Entomology teaching and research to medical students in a teaching medical institute in Pondicherry – A view and experience of a teaching faculty. Int J Med Sci and Nurs Res 2022;2(3):1–3. DOI: <https://doi.org/10.55349/ijmsnr.20233112>
8. Pandey A, Zodpey S, Kumar R. Demand–supply gaps in human resources to combat vector borne disease in India: capacity-building measures in medical entomology. WHO South-East Asia J Public Health 2015;4(1):92–97.
9. Sureshbabu J. Medical Entomology: Education and Research in India. Int J Med Sci and Nurs Res 2023;3(2):1–3. DOI: <https://doi.org/10.55349/ijmsnr.20233213>
10. Laroche M, Bérenger JM, Delaunay P, Charrel R, Pradines B, Berger F, et al. Medical Entomology: A Reemerging Field of Research to Better Understand Vector-Borne Infectious Diseases. Clinical Infectious Diseases 2017;65(suppl_1):S30–S38. DOI: <https://doi.org/10.1093/cid/cix463>
11. Vector Control Research Centre (VCRC): Ph.D in Medical Entomology. Available from: <https://vcrc.icmr.org.in/> [Last Accessed on: 27th December 2024]
12. Medical Entomology. Available from: <https://mrvv.edu.in/m-sc-medical-entomology/> [Last Accessed on: 28th December 2024]
13. Manipal Institute of Virology: Medical Entomology. Available from: <https://www.manipal.edu/miv/program-list/short-term4.html> [Last Accessed on: 28th December 2024]
14. Sureshbabu J. Medical Entomology is an Important Discipline in the Medical field and its Research. Int J Med Sci and Nurs Res 2024;4(4):1-2. DOI: <https://doi.org/10.55349/ijmsnr.20244412>

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