



REPORT

Continuing Medical Education (CME)/ Workshop on ASSISTIVE TECHNOLOGY_ REGIONAL ACTION FORWARD IN TECHNOLOGY FOR ASSISTANCE AND REHABILITATION-24 (AT_RAFTAR-24)

12 July, 2024

Room No: 828, SIC, VMMC & SJH, New Delhi

ORGANIZED BY:
DEPARTMENT OF PMR, VMMC & SJH, NEW DELHI

IN ASSOCIATION WITH:
INDIAN COUNCIL OF MEDICAL RESEARCH (ICMR)



SR. No	Chapters	Page No
1.	Background	11-12
2.	Objectives	13
3.	Expected Outcomes	14
4.	Methodology	15-16
5.	Recommendations Panel 1: Introduction to Assistive Technology & Selection Panel 2: AT in Healthcare and Rehabilitation Panel 3: Accessible Design and Universal Design Principle & Policies	17-25
6.	Annexures Annexure 1: Scientific Program Annexure 2: Press Clipping	26-30

**Dr. R. K. Srivastava**

Former DGHS, GOI

Former MS, VMMC & SJH

I am gratified to be part of this event and convinced that the journey towards the assistive technology development is on the right path. I extend my heartfelt wishes to everyone who made the launch of AT_RAFTAR-2024. This initiative, led by PMR department Vardhman Mahavir Medical College (VMMC) & Safdarjung Hospital (SJH), in collaboration with the Indian Council of Medical Research (ICMR), marks a significant step forward in our shared mission to enhance access to assistive technologies for individuals with functional impairments across India.

The discussions and panel sessions during the workshop have going to laid a robust foundation for the future of assistive technology in India. The roadmap we are now developing by the means of suitable efforts which aims to address the immediate needs of individuals with functional impairments and ensuring long-term, sustainable solutions. By focusing on key thematic areas—Rehabilitation, Assistive Technology, and Accessibility it is mandatory to adopt a comprehensive approach to the challenges ahead.

As moving forward, I encourage all stakeholders to remain actively involved in this vital initiative. The success of AT_RAFTAR-2024 relies on continued collaboration, innovation, and steadfast commitment to the cause. Together, we can achieve universal access to high-quality, affordable assistive products, improving the quality of life for countless individuals across our nation.

Thank You.



Prof. (Dr) Vandana Talwar

Medical Superintendent
VMMC & SJH, New Delhi

I am honored to address you at this (AT_RAFTAR-24) workshop on assistive technology and accessibility. These concepts represent a significant shift in healthcare, education, and social inclusion. Over 1 billion people globally need assistive products, a number expected to rise to 2 billion by 2050 due to our aging population and increasing prevalence of non-communicable diseases. Assistive technology includes devices ranging from walking canes to brain-computer interfaces, profoundly impacting independence and inclusion.

For instance, screen readers enable digital access for the visually impaired, and speech-generating devices provide a voice to those who cannot speak. However, the full potential of assistive technology is realized only with accessibility, designing inclusive products, services, and environments.

I'm pleased to announce that Safdarjung Hospital has formed an Accessibility Committee. As healthcare professionals, understanding and advocating for assistive technology and accessibility enhances patient care, improves outcomes, reduces healthcare costs, and fulfils our ethical obligation to promote equity and inclusion.

Challenges include awareness, affordability, training, stigma, and rapid technological change. This workshop aims to address these by exploring the latest developments in assistive technology and best practices for promoting accessibility in healthcare settings.

Thank you.



Dr. Ravinder Singh

Senior scientist, ICMR HQ
New Delhi

I am pleased to share that Vardhman Mahavir Medical College (VMMC) & Safdarjung Hospital (SJH) successfully launched the AT_RAFTAR-2024 workshop on July 12, 2024, following extensive consultations with the Indian Council of Medical Research (ICMR). The workshop, organized as part of a Continuing Medical Education (CME) event titled “Regional Action Forward in Technology Assistance and Rehabilitation (AT_RAFTAR-24),” marked a pivotal step toward improving access to assistive technologies in India.

The conference brought together key stakeholders from the health and rehabilitation sectors across the country. It aimed to strengthen the consistent provision of secure, effective, affordable, and high-quality assistive products, with the ultimate goal of achieving universal access to assistive technology for individuals with functional impairments nationwide.

The agenda comprised three insightful panel discussions: Introduction to Assistive Technology & Selection, Assistive Technology in Healthcare & Rehabilitation, and Accessible Design and Universal Design Principles & Policies. These sessions addressed five key aspects—People, Products, Provision, Personnel, and Policy—providing a comprehensive framework for actionable initiatives and strategies.

The discussions covered essential questions, such as the current status of assistive technology, existing gaps, and short-, mid-, and long-term solutions to bridge those gaps. Panelists offered valuable insights into improving coordination across sectors, enhancing accessibility, and empowering users and their families in policy development and service provision.

This conference represented a significant stride toward achieving equitable access to assistive technology in India, in line with global commitments. We are confident that the roadmap charted during AT_RAFTAR-2024 will guide future actions and foster ongoing collaboration among stakeholders.



Dr Geetika Khanna

Director Professor & Principal,
VMMC & Safdarjung Hospital, New

The primary focus of this workshop is to explore the transformative power of assistive technology in enhancing accessibility for individuals with disabilities and impairments. The goal is to foster an inclusive dialogue that highlights innovative solutions and best practices, ensuring that everyone has equal access to opportunities and resources.

The importance of these panel discussions is quintessential for raising Awareness Highlighting the challenges faced by individuals with disabilities and how assistive technology can address this issue showcasing cutting-edge technologies that promote independence and improve quality of life.

Bringing together stakeholders from various sectors to share insights and develop partnerships that drive accessibility initiatives. This type of workshops provides a platform for individuals with disabilities to share their experiences and advocate for their needs.

By organizing such workshop and discussion, build a right path for the aim to create a more inclusive society where everyone can thrive.

Thank you.



Dr. Ajay Gupta
Professor & HOD
Department of PMR
VMMC & SJH, New Delhi

It is my great pleasure to welcome you all to this significant CME cum workshop on Assistive Technology and Accessibility, organized by the PMR department. We are especially honored by the presence of our distinguished dignitaries—Dr. Talwar and Dr. Ravinder Singh from ICMR.

Today marks the beginning of an important mission: advancing the field of Assistive Technology to significantly enhance the lives of individuals with functional impairments. This workshop is not just about sharing knowledge; it's about driving real change that can improve accessibility and foster inclusivity.

The diverse expertise gathered here—from healthcare and education to cutting-edge technology—creates a unique platform for collaboration and innovation. By integrating these perspectives, we aim to develop practical solutions that address the complex needs of those who benefit from Assistive Technology.

I am particularly excited about the discussions we will have today, focusing on the latest advancements in this field and practical implementation strategies. Our goal is to ensure that the innovative ideas shared here are effectively deployed to make a tangible difference in people's lives.

To our distinguished guests, Dr. Talwar and Dr. Ravinder, your presence highlights the importance of this workshop. Your insights will be invaluable in guiding our discussions and shaping future directions in this critical area.

Let us approach this workshop with open minds and a shared commitment to driving meaningful change. Together, we can create a more inclusive world for all.

Thank you.



Dr. Suman Badhal

Professor, Department of PMR
VMMC & SJH, New Delhi

The Assistive technology is the need of the hour, which adds quality to the life. The lack of awareness and barriers in the domain are the major potholes need to be filled. The stakeholders, experts, and leaders from different domains with the best expertise in their domains are the main essence of the workshop which makes it as a remarkable event. The success of AT_RAFTAR-2024 hinges on the collaborative efforts of a dedicated core organizing team from Vardhman Mahavir Medical College (VMMC), Safdarjung Hospital (SJH), and the Indian Council of Medical Research (ICMR). This team has been meticulously assembled to ensure that every aspect of the workshop is perfectly planned and executed, reflecting the initiative's mission to enhance access to assistive technologies for individuals with functional impairments across the Nation.

Organising Secretary:

At the helm is Dr Suman Badhal, Professor, Department of PMR, VMMC & SJH, New Delhi. The vision behind this event is a desire to emphasize the role of assistive technology, accessibility and creating awareness which leads the foundation for AT_RAFTAR-2024.

It is supported by the core organising team who plays a pivotal role in ensuring that the conference's scientific content is enriching, robust, aligned and the event is glitch free.

Core Organising Team VMMC:

Sr. No	Member	Managements
1.	Arvind Vashist	Workshop management & Thematic oversight
2.	Laxmikant	Operations and Logistics
3.	Mohd. Shahbaz	Food & Refreshments
4.	Keshav Lohkana	IT management
5.	Abhishek Ranjan Raj	Public Relations and Communications

Core Organising Team ICMR:

Dr Salaj Rana Planning of Workshop

Dr Geeta Rana Thematic oversight

BACKGROUND

PMR department at Vardhman Mahavir Medical College (VMMC) & Safdarjung Hospital (SJH) launched AT_RAFTAR-2024 on July 12, 2024, following extensive consultations with the Indian Council of Medical Research (ICMR). The roadmap for future actions will be charted for the successful implementation of key points of AT_RAFTAR-24. VMMC approached ICMR, along with other stakeholders, to organize a Workshop titled “Regional Action Forward in Technology Assistance and Rehabilitation (AT_RAFTAR-24)” to outline strategies for improving access to assistive technologies. The conference took place on July 12, 2024, at conference room no. 828, 8th floor SIC, VMCC & SJH New Delhi.

This Conference aimed to unite key stakeholders from the health and rehabilitation sectors in India, with the primary objective of strengthening the consistent provisions of secure, effective, affordable, and high-quality assistive products and its selection. The goal is to achieve universal access, identify the role of rehab and healthcare in suitable assistive technology for individuals with functional impairments throughout the nation.

The conference agenda comprised 3-panel discussions categorized into three thematic domains: **Introduction to AT & Selection, AT in Healthcare & Rehabilitation, and Accessible Design and Universal Design Principles & Policies.** A comprehensive approach to Assistive Technology (AT) involves integrating of multiple aspects to ensure effective implementation, accessibility, and sustainability.

1. Appropriate AT, Needs Assessment and Stakeholder Engagement

- **User-Centred Approach:** Identify the specific needs of individuals with disabilities or those required assistive technology. Conduct surveys, interviews, or assessments.
- **Stakeholder Involvement:** Engage healthcare professionals, users, caregivers, manufacturers, and policymakers. This ensures AT solutions are suitable, acceptable, and effective.
- **Assessment Tools:** Use validated tools for evaluating user needs (e.g., functional assessment scales) and environmental factors that affect the AT device usage.

2. Technology Development and Customization

- **Research and Innovation:** Encourage R&D to create affordable, effective, and user-friendly devices. Innovations should address diverse disabilities (e.g., mobility aids, hearing devices, visual aids).
- **Customization:** Modify and adapt assistive technologies to suit individual requirements. Factors such as the user’s physical condition, environment, and socio-economic background should guide customization.
- **Collaboration with Engineers and Designers:** Ensure that medical and engineering professionals collaborate for effective design and functionality.

3. Accessibility and Affordability

- **Cost Consideration:** Develop cost-effective AT solutions to ensure affordability, particularly for low-income groups.
- **Government and NGO Involvement:** Advocate for government and non-profit organizations to subsidize costs or provide funding for AT devices.
- **Insurance Coverage:** Work with policymakers to include AT under insurance schemes, making them more financially accessible.

4. Policy and Advocacy

- **Legislation:** Ensure compliance with national and international laws, like the United Nations Convention on the Rights of Persons with Disabilities (CRPD), to protect the rights of individuals with disabilities.
- **Awareness Campaigns:** Promote awareness of the benefits of AT in improving quality of life and independence for individuals with disabilities.
- **Standards and Guidelines:** Establish universal guidelines for the development and implementation of AT, ensuring safety, quality, and effectiveness.

5. Integration into Healthcare Systems

- **Inclusion in Rehabilitation Programs:** Integrate AT services into rehabilitation settings (e.g., physical medicine and rehabilitation departments). Ensure that AT is part of comprehensive rehabilitation care.
- **Cross-Disciplinary Teams:** Foster collaboration among different healthcare professionals (physicians, occupational therapists, speech therapists, rehabilitation specialists) for holistic care.
- **Follow-Up and Monitoring:** Establish systems for continuous evaluation of AT use, outcomes, and user satisfaction.

A comprehensive approach to assistive technology requires collaboration across multiple sectors, including healthcare, policymaking and advocacy. The key is to ensure that AT is accessible, affordable, and tailored to meet the needs of users, ultimately improving their quality of life and independence. This conference marked a significant stride towards achieving equitable access to assistive technology for individuals with functional impairments in India, in line with global commitments and best practices. It convened a wide array of stakeholders to tackle the full spectrum of challenges and opportunities within the field of assistive technology.

OBJECTIVES

The objectives for the Continuing Medical Education (CME) segment of the RAFTAR-2024 can be outlined as follows:

Primary Objective:

To create awareness, impart knowledge, and facilitate the implementation of Assistive Technology (AT). AT has the power to significantly enhance the lives of individuals with functional impairments, promoting independence and improving quality of life.

Conference Intent:

The Regional Action Forward in Technology for Assistance and Rehabilitation (AT_RAFTAR-2024) Conference aims to create a platform for exchanging knowledge, experiences, practices, and lessons learned among diverse stakeholders from the healthcare, education, and technology sectors.

Collaboration:

By fostering collaboration among these sectors, we aim to drive innovation and develop comprehensive solutions to the unresolved issues while selecting the technology or accessibility which address the needs of individuals with functional impairments and better outcome.

CME Goals:

1. Knowledge Sharing:

Focus on sharing the latest advancements and best practices in Assistive Technology.

2. Practical Implementation:

Emphasize practical implementation strategies to ensure that AT solutions are accessible and effective.

3. Innovation:

Encourage innovative thinking to push the boundaries of what Assistive Technology can achieve.

4. Role of Rehab and healthcare:

Improvise the role of assistive technology in rehabilitation and healthcare management to gain more promising outcome.

EXPECTED OUTCOMES OF AT_RAFTAR-24

1. Empowering Independence and Enhancing Quality of Life

AT_RAFTAR-24 aims to emphasize the vital role of assistive technology in promoting independence and improving the overall quality of life for individuals with disabilities and impairments. AT solutions enable users to overcome functional limitations, enhancing their ability to perform daily activities and participate more fully in society.

2. Defining the role of rehabilitation & healthcare:

AT_RAFTAR-24 highlighted the wide range of assistive devices available, for locomotor needs to visual assistance for those with vision impairments. Each type of device plays a crucial role in addressing specific disabilities and supporting individuals in different spectrum of their lives. Here the role of rehab and healthcare is important for selection, training and managing the complications or if any and continuous improvement by means of feedback.

3. Advocating Accessibility and adaptability

Accessibility is the key domain for the Assistive technology the key barriers are lack of awareness, cost, availability, lack of training. All-inclusive design principles to be adopted into both public and private projects with more support to be given to indigenous regional products with modifications for sustainability. This ensures, products, and services are accessible to everyone, reducing the cost User-centred and low cost devices approach ensure that AT devices can adapt to varying preferences and functional needs, improving the overall effectiveness and acceptance of the technology for masses.

METHODOLOGY FOR AT_RAFTAR-24

Step 1: Defining Conference Objectives

The initial step involved comprehensively articulating the objectives of AT_RAFTAR-24. This included aligning the main objectives with the key recommendations of the WHO Global Report on Assistive Technology (GReAT), NLEAP and outlining the purpose, identifying participants and target audiences, and specifying the expected outcomes of the conference and work so far done in the Indian context.

Step 2: Organizing Panel Discussions

Few preparatory meetings were conducted to structure the conference into three panels of experts, corresponding to the key recommendations from the GReAT Report. Experts for each panel were selected using as per their expertise in the respective domains This ensured a diversified perspectives. Each panel was assigned a moderator to facilitate the discussions.

Step 3: Pre-Conference Communication

Panel experts were briefed through emails regarding the aims, objectives, forward plans, recommendations, and specific questions related to their panels. This pre-conference communication allowed experts to provide their opinions on each panel theme, which helped tailor the discussions to meet the conference's needs and expectations.

Step 4: Panel Discussion Structure

On the day of the conference, each panel began with a brief presentation summarizing the corresponding panel's aims, objectives, forward plans, recommendations, and identified questions. Open discussions were facilitated by the moderators, who asked each panelist to share insights, challenges, and potential solutions related to their respective themes.

Step 5: Q&A Sessions

Following each panel discussion, a dedicated Q&A session was held to allow the target audience to seek clarifications, share additional insights, and interact with panelists for a more opinions and broader sight of the topic .

Step 6: Post-Conference Action Plan

The conference concluded with suggestions to formulating a tangible action plan and way forward. This concluded with proposed actions to improve access to AT. The better integration in rehabilitation and healthcare service, proposed actions, and practical solutions for accessibility of assistive technology, required resources for provisioning, the expected societal and individual impact, and future directions.

Structure of AT_RAFTAR-24 Panels

Thematic Domains:

Introduction to AT & Selection.

AT in Healthcare & Rehabilitation.

Accessible Design and Universal Design Principles & Policies.

Focus Areas:

1. People
2. Products
3. Provision
4. Personnel
5. Policy

Guiding Questions for Panels:

1. How to proceed?
2. Where are we expectation?
3. What are the barriers?
4. How to resolve the barrier?
5. What are the tangible solution ?

Participants and Target Audience:

- Professionals from health and rehabilitation sectors
- Medical students
- Policy makers
- Academic institutions
- Organizations representing people with disabilities or older people
- Nonprofit organizations
- Professional associations
- User representatives
- Manufacturers
- Funding agencies and donors
- Allied private entities
- Administrators
- Standardization experts

RECOMMENDATION

PANEL:1

INTRODUCTION TO ASSISTIVE TECHNOLOGY & SELECTION

AIM: To provide healthcare professionals with a comprehensive understanding of assistive technologies, their benefits, and the criteria for selecting appropriate devices for patients. The course covers the types of assistive technologies available, their applications in enhancing patient independence and quality of life, and the process of evaluating and choosing the most suitable options based on individual patient needs and conditions.

OBJECTIVES:

1. Understand the basics and importance of assistive technology in enhancing the lives of individuals with disabilities.
2. Identify different types of assistive technology devices and their applications.
3. Learn the criteria and process for selecting appropriate assistive technology for specific needs.
4. Explore best practices for implementing and evaluating the effectiveness of assistive technology solutions.

PILLARS:

1. **Standardized Protocols:** Develop standardized protocols to guide the integration of assistive technology within healthcare systems, clearly defining the roles and responsibilities of healthcare providers and rehabilitation specialists.
2. **Training and Capacity Building:** Invest in programs to train and build the capacity of healthcare professionals, ensuring they possess the necessary knowledge and skills to effectively deliver assistive technology services.
3. **Collaboration Framework:** Establish a framework to foster collaboration between health and rehabilitation sectors, promoting regular communication and joint initiatives to enhance access to assistive technology.
4. **Research and Data Collection:** Encourage research on the effectiveness of assistive technology services and collect data to monitor progress, identifying areas for improvement.

MEMBERS:

Chairperson: Dr. Ravinder Singh, Senior Scientist ICMR

Moderator: Dr. Geeta Rani, ICMR

Panelist:

1. Dr. S.L Yadav, PMR, AIIMS
2. Ms. Charu Sharma, ICRC
3. Dr. Suman Badhal, PMR, VMMC & SJH
4. Mr. Sidharth Bhan, ALIMCO
5. Mr. Manoj Dawar, NGO

Key Recommendations from the Panel Discussion

1. AT Awareness Materials:

a. Developing Informational Materials:

- **Brochures and Pamphlets:** Create clear, concise brochures that outline what AT is, its benefits, and examples of different types of AT.
- **Fact Sheets:** Develop fact sheets that provide quick reference guides about specific AT devices and their uses.
- **Infographics:** Design infographics that visually explain how AT can improve quality of life and independence.

b. Utilizing Multimedia Resources:

- **Videos and Webinars:** Produce educational videos and host webinars demonstrating the use of various AT devices and sharing success stories.
- **Podcasts:** Launch a podcast series featuring interviews with AT users, professionals, and experts discussing the latest developments in AT.
- **Social Media Campaigns:** Use social media platforms to share success stories, tips, and updates on new AT technologies.

c. Strategies for Increasing Awareness:

- **Community Outreach:** Partner with local organisations, schools, and community centers to distribute awareness materials and host informational sessions.
- **Workshops and Seminars:** Organize workshops and seminars to educate the public, caregivers, and professionals about the importance and impact of AT.
- **Public Service Announcements:** Create and broadcast public service announcements on local radio, television, and online platforms.

2. Personnel & Professional Training:

a. Training Needs Assessment:

- **Surveys and Interviews:** Conduct surveys and interviews with staff and stakeholders to identify knowledge gaps and training needs.
- **Skill Assessments:** Use skill assessments to determine the current level of proficiency and identify areas for improvement.

b. Designing Effective Training Programs:

- **Customized Training Modules:** Develop training modules tailored to different roles (e.g., educators, healthcare providers, caregivers).
- **Hands-On Training:** Incorporate practical, hands-on training sessions where participants can practice using AT devices.
- **Blended Learning:** Combine online learning with face-to-face sessions to provide flexible and comprehensive training.

c. Continuous Professional Development:

- **Regular Workshops and Refresher Courses:** Offer ongoing workshops and refresher courses to keep staff updated on new AT developments and best practices.
- **Professional Certifications:** Encourage staff to pursue certifications in AT and related fields.
- **Mentorship Programs:** Establish mentorship programs where experienced professionals can guide and support less experienced staff.

3. AT Audits in Institutions for the AT Ecosystem:

a. Purpose and Benefits of AT Audits:

- **Identifying Needs and Gaps:** Use audits to identify the current state of AT usage and pinpoint areas needing improvement.
- **Resource Allocation:** Ensure resources are being used effectively and identify opportunities for cost savings.
- **Compliance and Standards:** Verify that the institution meets relevant AT standards and regulations.

b. Steps to Conduct an AT Audit:

- **Preparation:** Define the audit scope, form an audit team, and develop an audit plan.
- **Data Collection:** Gather data through surveys, interviews, observations, and document reviews.
- **Analysis:** Analyze the collected data to identify strengths, weaknesses, opportunities, and threats (SWOT analysis).
- **Reporting:** Prepare a detailed report with findings, recommendations, and an action plan.

c. Integrating Audit Results into Institutional Planning:

- **Action Plans:** Develop action plans based on audit findings to address identified needs and gaps.
- **Monitoring and Evaluation:** Establish a system to monitor the implementation of the action plans and evaluate their effectiveness.
- **Continuous Improvement:** Use the audit results to drive continuous improvement in AT services and support.



PANEL:2

AT in Healthcare and Rehabilitation

AIM: To explore the development, implementation, and impact of assistive technologies in enhancing patient care, improving rehabilitation outcomes, and promoting independence for individuals with disabilities.

OBJECTIVES:

1. Understand the latest advancements in assistive technologies and their applications in healthcare and rehabilitation.
2. Explore the impact of assistive technologies on patient outcomes, quality of life, and independence.
3. Examine case studies and evidence-based practices demonstrating the effectiveness of various assistive technologies.
4. Discuss the ethical, financial, and practical considerations in the implementation and adoption of assistive technologies in clinical settings.

PILLARS:

1. **Standardized Protocols:** Develop standardized protocols to guide the integration of assistive technology within healthcare systems, clearly defining the roles and responsibilities of healthcare providers and rehabilitation specialists.
2. **Training and Capacity Building:** Invest in programs to train and build the capacity of healthcare professionals, ensuring they possess the necessary knowledge and skills to effectively deliver assistive technology services.
3. **Collaboration Framework:** Establish a framework to foster collaboration between health and rehabilitation sectors, promoting regular communication and joint initiatives to enhance access to assistive technology.
4. **Research and Data Collection:** Encourage research on the effectiveness of assistive technology services and collect data to monitor progress, identifying areas for improvement.

MEMBERS:

Chairperson: Dr. Sanjay Wadhwa, Professor & HOD, PMR AIIMS, New Delhi

Moderator: Mr. Ranjani Bhushan, ICRC

Panelist:

1. Dr. Suraj Singh Senjam, Ophthalmology, RPC AIIMS
2. Dr. Kshitij Malik, Dr. Malik's Prime Clinic
3. Ms. Poonam Dhanda, PMR, VMMC & SJH
4. Dr. Sangeeta Abrol, (Former DDG) VMMC & SJH

Key Recommendations from the Panel Discussion

1. Diversify Assistive Technology: Encourage the development and use of both simple tools (e.g., magnifying glasses) and advanced systems (e.g., digital communication devices) to meet the varying needs of individuals with disabilities.

Focus on research and development of new technology: –

a. Research & Development –

- Evaluating or integration of new technology, devices, and instruments.
- Setting up an innovation center
- Development of funding mechanism (Gov.)

b. Development of Human resources–

- Development of training centers
- Development of courses on assistive technology for specific disabilities
- Creating the position in the hospital and rehabilitation institutes
- Training for health and rehab professionals

c. Service delivery model–

- Training and sensitization program for professional
- Door-to-door identification program
- Ensuring the availability of quality of services

2. Integrate Rehabilitative and Assistive Technologies: Recognize the overlap between rehabilitative and assistive technologies, emphasizing their combined role in aiding recovery and enhancing daily functioning.

Appropriate use of rehabilitative technologies: –

Used in advanced system reform–

- Robotics
- Virtual technology
- Musculoskeletal modeling and simulation
- Transcranial magnetic stimulation (TMS)
- Transcranial direct current stimulation (tDCS)
- Motion analysis

Budgetary provision – Approaching corporates to make them aware of assistive technology needs and facilitate funding for reforming process.

3. Promote Research and Development: Support ongoing research and**Innovations: -**

- Solutions through adaptable devices
- Mentorship programs
- Program for certification, training, and livelihood support

Funding at the Right place: -

- Funding for empowering the AT
- Investment at the right place.

4. Enhance Rehabilitative Engineering: Invest in rehabilitative engineering to address barriers faced by individuals with disabilities, ensuring solutions facilitate better interaction with their environments.

Development and use of appropriate technology -

- Mobility, Hearing, cognitive aids
- Computer software and hardware
- lightweight and high-performing device
- Close captioning, Physical modification in the environment
- Lightweight, high-performance mobility device for sports activity
- Devices to help perform the task.

5. Foster Collaboration: Encourage collaboration between engineers, healthcare providers, and individuals with disabilities to design and implement practical solutions that address real-world challenges.

A. Establishing collaboration: -

- To implement evidence-based Practices, Generalizable knowledge, Implementation engineering, Implementation science, Knowledge Generation, Local knowledge, Science, and Engineering
- Collaboration between engineering resources and the health service research center.
- Collaboration between academia and the service providers for data and implementation of the outcome.

B. Fund generation: -

- Establishing NGOs and corporates for empowering Persons with Disabilities (PwDs) through CSR initiatives.
- Awareness program among professionals to mobilize CSR to invest in R&D for innovation activity.
- Awareness among health and rehab professionals to mobilize the CSR funds.



PANEL:3

Accessible Design and Universal Design Principles & Policies

AIM: To explore measures to foster accessible and universal design along with policies conducive for the same.

OBJECTIVES:

1. Educate designers and developers on accessibility best practices perform regular accessibility audits and address issues.
2. Integrate accessibility from the start and involve diverse user groups conduct usability tests with users having various disabilities.
3. Design for usability by people with diverse abilities accommodate a wide range of preferences and abilities.
4. Advocate for universal design in public and private projects promote universal design through education and awareness.

PILLARS:

- 1 **Inclusivity & Equitable Use:** Design with input from diverse user groups ensure usability for all people, regardless of abilities.
- 2 **Assistive Technology & Error Tolerance:** Ensure compatibility with assistive devices and software minimize risks and provide error-correction mechanisms.
- 3 **Educational Outreach & Clear Documentation:** Offer comprehensive guides and support for accessibility features promote universal design through education and awareness.
4. **Continuous Improvement Audit and Feedback:** Conduct audits and incorporate user feedback for continuous improvement regularly update designs to incorporate new technologies and meet evolving user needs.

MEMBERS:

Chairperson: Dr. R K Srivastava, Former-DGHS, MoHFW-GOI, Former-MS VMMC & SJH, New Delhi

Moderator: Dr. Avijit Bansal, NCAHT, AIIMS

Panelists:

1. Dr. Ajay Gupta, PMR, VMMC & SJH
2. Dr. Harleen Uppal, Sports Injury Centre, VMMC & SJH
3. Dr. Jugal Kishore, Community Medicine, VMMC & SJH
4. Mr. Pandian, OPAI
5. Dr. Monika Saini, NIFHW

Key Recommendations from the Panel Discussion

1. Emphasize on Universal design over accessible design

“Accessible” design, despite the best intentions sometimes fails to achieve true inclusion of all members of our diverse society. When accessibility is incorporated into design as an afterthought, the resultant design may not allow persons with functional limitations to access the product, infrastructure or service at par with the rest of the population. The accessibility structures or features may get saturated soon or be rendered ineffective in certain situations. Moreover, such design often fails to offer to persons with functional limitations the same user experience as it does to everyone else, thus making them feel excluded and defeating the whole purpose of the exercise. Thus, the focus should be on universal design which keeps the entire population in mind from get go and aims to provide comparable utility, usability and user experience to all, at all times. This applies to buildings, websites and products alike.

2. Advocate for the allocate of necessary resources

Universal design is not a luxury subject to availability of funds. It is instead a call of dignity, and inclusion of all without discrimination, which is a fundamental right of all citizens, further emphasized by the RPWD act of 2016. When considering the ‘cost of inclusion’, the cost of exclusion should also be considered, namely the well-known and sizeable GDP losses occurring due to failure to include persons with functional limitations. Stronger advocacy to attract more public investment toward universal and inclusive design.

3. Focus on Gateway Infra and services

Special attention should be paid to the universal design of buildings like hospitals and services like UDID provision. By incorporating Universal design, these sectors can act as ambassadors for the principles of Universal Design. These constitute a gateway for persons with functional limitations towards to experience true inclusion.

4. Focus on policy implementation

Need to focus on superior implementation of existing policies. Policies, such as the National Building Code, need to be dynamic and responsive to the evolving needs of society.

5. Policy for universal design of Assistive Technology

Entities like the National Design Bureau and other relevant bodies should develop guidelines for the universal design of Assistive Technology and other products to foster universal inclusion. This should be followed by the appropriate implementation of such guidelines by the relevant stakeholders.

6. Focus on AT development and manufacturing

Seize the unique opportunity for India to become the AT capital of the world. Just like the UPI system, Assistive Technology and Universal design can be the next great global export of India. In view of globally renowned medical and technical expertise and a large population in need of assistive technology, this is needed and possible.

7. Focus on hospitals and medical colleges as hubs for AT and universal design

Given the deep involvement of hospitals in working with functional impairments, they are uniquely equipped with the knowledge required to develop assistive products and products with universal design. Academicians and students at medical colleges should work in close collaboration with technical institutes and innovators, to develop relevant ATs. Medical colleges should also better support their own students when they want to develop ATs. Personnel at Medical Colleges should be enabled and empowered to devote the necessary time and energy into such innovative pursuits.

8. Co-create Assistive Technology with end users

End users should be included from the very beginning in the process of universal design, and development of Assistive Technologies. This, along with frequent user testing with diverse groups, will ensure that products and environments meet diverse needs effectively.

9. Support Education and Training

Provide training and resources for designers, engineers, and policymakers on accessible and universal design principles through workshops and courses on best practices for technology developers and architects.

10. Implement Accessible Technology Standards

Adhere to established standards and guidelines, such as the Web Content Accessibility Guidelines (WCAG) for website development, to ensure digital content is accessible to people with disabilities.



ANNEXURE-1

SCIENTIFIC PROGRAM

	Time	Event	
	10:00 –10:15 AM	Registration	
	10:15 AM	Inauguration & Lamp lighting	
S.no		Session	
1.	10:45–11:45 AM	1: Introduction to Assistive Technology & Selection	Chairperson: Dr. Ravinder Singh , Senior Scientist ICMR Moderator: Dr. Geeta Rani , ICMR 1. Dr. S.L Yadav, PMR, AIIMS 2. Ms. Charu Sharma, ICRC 3. Dr. Suman Badhal, PMR, VMMC & SJH 4. Mr. Sidharth Bhan, ALIMCO 5. Mr. Manoj Dawar, NGO
2.	11:45 AM	Tea	
3.	12:00–1:00 PM	2: AT in Healthcare and Rehabilitation	Chairperson: Dr. Sanjay Wadhwa , Professor & HOD, PMR AIIMS, New Delhi Moderator: Mr. Ranjani Bhushan , ICRC 1. Dr. Suraj Singh Senjam, Ophthalmology, RPC AIIMS 2. Dr. Kshitij Malik, Dr. Malik's Prime Clinic 3. Ms. Poonam Dhanda, PMR, VMMC & SJH 4. Dr. Sangeeta Abrol, Former DDG VMMC & SJH
4.	1:00–2:00 PM	Lunch	
5.	2:00–3:00 PM	3. Accessible Design and Universal Design Principles & Policies	Chairperson: Dr. R K Srivastava Former-DGHS, MoHFW-GOI Former-MS VMMC & SJH Moderator: Dr. Avijit Bansal , NCAHT, AIIMS 1. Dr. Ajay Gupta, PMR, VMMC & SJH 2. Dr. Harleen Uppal, Sports Injury Centre, VMMC & SJH 3. Dr. Jugal Kishore, Community Medicine, VMMC & SJH 4. Mr. Padian, OPAI 5. Dr. Monika Saini, NIFHW

6.	3:00-3:30 PM	Closing remarks & Discussion	
7.	3:30-4:00 PM	Vote of thanks & High Tea	Dr. Suman Badhal Professor, PMR VMMC & Safdarjung Hospital

Patron: Dr. RK Srivastava, Former-DGHS, MoHFW-GOI, Former-MS VMMC & SJH, New Delhi

Chief Guest: Prof (Dr.) Vandana Talwar, Medical Superintendent, VMMC & SJH, New Delhi

Guest of Honor: Prof (Dr.) Geetika Khanna, Principal, VMMC & SJH, New Delhi

Registration is complementary but mandatory

Registration link: <https://forms.gle/9j8PhSgVmtrH3rJV8>



For further enquiry: +91 9958289313, +91 8700527700

सफदरजंग में दिव्यांग व्यक्तियों के लिए मेडिसिन पर कार्यशाला

नई दिल्ली, (पंजाब केसरी) : सफदरजंग अस्पताल के फिजिकल मेडिसिन एंड रिहैबिलिटेशन (पीएमआर) विभाग ने भारतीय चिकित्सा अनुसंधान परिषद (आईसीएमआर) के सहयोग से सहायक प्रौद्योगिकी और सुगमता पर केंद्रित सतत चिकित्सा शिक्षा (सीएमई) सह कार्यशाला कार्यक्रम का आयोजन किया। कार्यक्रम में 55 से अधिक प्रतिनिधियों ने भाग लिया और पैनल चर्चाएं हुईं। सफदरजंग अस्पताल की चिकित्सा अधीक्षक डॉ. वंदना तलवार ने सीएमई के उद्घाटन के अवसर पर कहा कि दिव्यांग व्यक्तियों के लिए स्वतंत्रता और जीवन की गुणवत्ता बढ़ाने में सहायक प्रौद्योगिकी एक महत्वपूर्ण घटक है। डॉ. रविंदर सिंह ने कहा कि आईसीएमआर में हमारा ध्यान ऐसे शोध का समर्थन करना है जो इन नवाचारों को मरीजों के लिए व्यावहारिक, लाइफ चेंजिंग समाधानों में बदल सके।

बुजुर्गों के दैनिक जीवन में सुगमता प्रदान करती है सहायक प्रौद्योगिकी

नई दिल्ली, 14 जुलाई (नवोदय टाइम्स): विकलांगों और बुजुर्गों के लिए सहायक प्रौद्योगिकी एक महत्वपूर्ण घटक है जो उनके दैनिक जीवन में सुगमता और स्वतंत्रता प्रदान करती है। यह बातें सफदरजंग अस्पताल की चिकित्सा अधीक्षक डॉ. वंदना तलवार ने शनिवार को कहीं। वह फिजिकल मेडिसिन एंड रिहैबिलिटेशन (पीएमआर) विभाग और भारतीय चिकित्सा अनुसंधान परिषद (आईसीएमआर) के सहयोग से आयोजित सतत चिकित्सा शिक्षा (सीएमई) सह कार्यशाला में बोल

रही थी।

आईसीएमआर के वरिष्ठ वैज्ञानिक डॉ. रविंदर सिंह ने कहा, सहायक प्रौद्योगिकी में तेजी से हो रही प्रगति ने ऐसे उपकरणों की उपलब्धता सुनिश्चित की है जो आज लगभग تمام विकलांगों और बुजुर्गों की पहुंच में हैं। आईसीएमआर में हमारा ध्यान ऐसे शोध का समर्थन करना है जो इन नवाचारों को रोगियों के लिए व्यावहारिक, जीवन-परिवर्तनकारी समाधानों में बदल सके। इस अवसर पर पीएमआर के एचओडी डॉ. अजय गुप्ता और सुमन बघाल मौजूद रहे।



क्या है सहायक प्रौद्योगिकी

श्रवण, दृष्टि और शारीरिक गतिविधियों के लिए प्रयोग किए जाने वाले उपकरणों को सहायक प्रौद्योगिकी कहा जाता है। इसका सर्वाधिक उपयोग करने वालों में बुजुर्ग और विकलांग व्यक्ति शामिल हैं। बुजुर्ग व्यक्ति मुख्य रूप से व्यक्तिगत देखभाल के लिए अपनी क्षमता बनाए रखने के लिए कम तकनीक वाले उपकरणों का उपयोग करते हैं। जैसे, बाथरूम में ग्रेब बार, विशेष रसोई के बर्तन, अधिक रोशनी, बैत और वॉकर आदि। बच्चे और युवा वयस्क फुट ब्रेसेस, कृत्रिम हाथ या हाथ अनुकूलित टाइपराइटर या कंप्यूटर और लेग ब्रेसेस जैसे उपकरणों का उपयोग करते हैं।



Dr. Suman Badhal
Professor
Department of Physical Medicine & Rehabilitation
VMMC & SJH, NEW DELHI-110029
Ph: +91 9958289313
Email: drsuman_badhal@yahoo.com



Indian Council of Medical Research
V. Ramalingaswami Bhawan, P.O. Box No. 4911
Ansari Nagar, New Delhi-110029, India
Ph: +91-11-26588895
Email: icmrhqds@sansad.nic.in

Produced in collaboration with the International Committee of the Red Cross (ICRC), New Delhi