

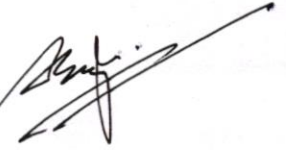
A.11018/03/2021-MH.II/NCD-I
Government of India
Ministry of Health and Family Welfare
NCD-I

Nirman Bhawan, New Delhi
Dated the 02nd June, 2022

Public Notice

Draft Accessibility Standards for Healthcare, Govt. of India
Ministry of Health and Family Welfare is annexed herewith

2. The stakeholders, interested in making any objection/comments or suggestions on the draft Standards for Healthcare, Govt. of India Ministry of Health and Family Welfare may do so in writing, within a period of 30 days from the publication to Under Secretary (NCD-I), Room No. 430, C-Wing, Ministry of Health and Family Welfare, Nirman Bhawan, Maulana Azad Road, New Delhi-110108 or at email address: s.dharminder@nic.in



(Dharminder Singh)
Under Secretary to the Govt. of India
Tel. No. 2306 2666



Accessibility Standards for Healthcare



Govt. of India

Ministry of Health a Standards for Healthcare, Govt. of India
Ministry of Health and Family Welfare Standards for Healthcare, Govt. of

Acknowledgement

Accessibility to healthcare is an important aspect in providing equal rights and opportunities to persons with disabilities. The accessible healthcare requires to be standardised to make it easy for the infrastructure developers, equipment and furniture manufacturers and service providers to provide good quality, safe and easily available accessible healthcare. The much-required standards for an accessible Indian healthcare system which are given in this manual have been framed to provide the accessible healthcare to persons with all types of disabilities. Framing of these standards will help Govt. of India in fulfilling the requirements under UNCRPD Act and The Rights of Persons with Disability Act, 2016.

The Committee for framing the Healthcare Standards acknowledges the overall guidance provided by Shri Rajesh Bhushan, Secretary, Govt. of India and support and guidance provided by Dr. Sunil Kumar, Director General of Health Services. The committee is also thankful to Dr. Harmeet Singh, Joint secretary, for his unconditional support.

The committee is grateful to Dr. Rajiv Garg, Professor of Excellence, Dr. Anil Manaktala, DDG and Dr. Rinku Sharma, ADG from Directorate General of Health Services and Ms. Sarita Nair, DS from MoHFW for the help provided by them during the process of framing these standards.

The committee appreciates the support and guidance provided by CPWD, Min. of Urban Development and CCPD, Department of Disability Affairs, Ministry of Social Justice and Empowerment, Govt. of India during framing of these standards.

Committee for framing the Healthcare Accessibility Standards

Dr. Anil Kumar Gaur

Director, All India Institute of

Physical Medicine and Rehabilitation, MumbaiChairman

Dr. Naveen Kumar,

Additional Professor (PMR)

JIPMER, Puducherry Member

Dr. Sanjay Kumar Pandey

Additional Professor (PMR)

AIIMS, Patna Member

Shri Abhishek Bose

Senior Architect,

CPWD, New Delhi.....Member

Table of Contents

Content	Page No.
1. List of Illustrations	5
2. Overview	6
2.1. Introduction	6
2.2. Legislative and policy context	6-7
2.3. Healthcare providers	8
2.4. Disabilities	8
2.5. Barriers to healthcare	8-9
2.6. Creating accessible environment and services	9
2.7. Universal access and universal design	9
2.8. Building structure guidelines	10
3.0. Accessible arrival and departure zone (Loading Zone)	11
4.0. Accessible Outpatient and Emergency Departments	12
4.1. Reception	12-14
4.2. Waiting area	14-15
4.3. Writing table or counter	15-16
4.4. Payment counter	16
4.5. Washroom	16-17
5.0. Accessible Outdoor Patient Care zone	18
5.1. Patient examination room	18
5.2. Clothes changing room	19
5.3. Diagnostic laboratory	20
5.4. Laboratory toilet	21
5.5. Dressing room, plaster room	

and minor procedure room	21
5.6. Pharmacy	21-22
6.0. Accessible indoor healthcare	23
6.1. Ward	23
6.2. Maternity ward	24-25
6.3. Ward bathroom	25
6.4. Emergency exit	26
7.0. Accessible medical equipment and furniture	27-28
7.1. Examination table and chairs	28-29
7.2. Lifts for shifting persons with locomotor disability	29
7.2.1. Portable floor lift	29
7.2.2. Overhead track lift	29-30
7.2.3. Overhead lift mounted on a fixed frame	30
7.2.4. Overhead lift mounted on a free frame	30-31
7.3. Gynecological examination table	31-32
7.4. Radiological diagnostic equipment	32
7.4.1. Mammography equipment and chair	33-34
7.4.2. Densitometer with adjustable height stretcher	34
7.5. Weighing scale	34-35
7.6. Commodes and shower transfer benches	35-36
7.7. Complementary & alternative medicine equipment and furniture	36
7.8. Hospital cribs and incubation units	36
7.9. Ophthalmology and Optometry Chairs and Tables	37
7.10. Dental Chairs	37-38
7.11. Birthing chairs	38-39

7.12. Infusion Recliners	39
7.13. Hospital beds	40
7.14. Gurneys or wheeled stretcher	40-41
7.15. Infusion pumps	41
7.16. Rehabilitation equipment	41-42
8.0. Training programme	43
8.1. Interacting and communicating with persons with disability	44
8.1.1. Language to be used for persons with disability	44
8.1.2. Interacting and communicating with persons with locomotor disabilities	44-45
8.1.3. Interacting and communicating with persons with low vision or blindness	45
8.1.4. Interacting and communicating with persons with hearing problems like hard of hearing or deaf	45-47
8.1.5. Interacting and communicating with persons with speech and language problems/difficulties	47
8.1.6. Interacting and communicating with persons with intellectual disability	47-48
8.1.7. Interacting and communicating with persons with psychiatric disabilities	48
9.0. Accessible communication	49
10.0. Use of Information and Communication technology	50
10.1. Website accessibility	50
10.2. BIS standard for Accessibility for ICT Products and services	50-51

11.Suggested dimensions of space and specifications for
use of accessible equipment and furniture

52-53

1.List of Illustrations

Fig. No.	Subject	Page No.
1.0	Accessible Outdoor Patient and Emergency department	
1.1	Accessible arrival and departure zone (Loading Zone)	11
1.2	Accessible reception	12
1.3	Dimensions of an accessible reception counter	13
1.4	Communication request form for persons with hearing disability	14
1.5	Reception and waiting area	15
1.6	Writing counter for a person in wheelchair	16
1.7	Accessible washroom	17
1.8	Accessible patient examination room	18
1.9	Accessible changing room	19
1.10	Accessible clinical laboratory	20
1.11	Accessible laboratory toilet dimensions	21
2.0	Accessible Indoor patient department	
2.1	Accessible hospital ward	24
2.2	Ward bathroom	25
3.0	Accessible medical equipment and furniture	
3.1	Accessible examination table	28
3.2	Portable floor lift with weighing scale	30
3.3	Fixed overhead patient lift	31
3.4	Accessible gynecological examination table	32
3.5	Accessible mammography equipment	33
3.6	Densitometer with accessible stretcher	34
3.7	Accessible weighing scale	35
3.8	Accessible hospital crib	36
3.9	Wheelchair lift in a dental clinic	38
3.10	Birthing chair	38
3.11	Infusion recliner	39
3.12	Accessible hospital bed	40

2.0.Overview

2.1. Introduction

Access, in context of providing accessible health care services to persons with disability(PwD)is to reach the health care facility and get the services available, without obstacles, with dignity and with full independence.Accessibility has been defined by UN as “giving equal access to everyone” which involves not only providing access to all possible facilities but also to all the services.Accessible healthcare requires:

- Availability of services
- Physical access and accessible physical design of healthcare infrastructure
- Access to required information
- Easy communication
- Trained staff with reasonable accommodation (sensitivity to individual differences and disabilities), awareness of specific needs of PwD and skills to take care of their needs.
- Affordability and acceptability of the services.
- Accessible delivery of services

Accessibility Standards for medical care centres are required for increasing disability awareness and to provide accessible health services that are of high quality, appropriate and safe and meet the requirements of people with different types of disabilities. Aims of these standards are:

- To provide access to persons with disabilities to preventive, curative and rehabilitative medical services.
- To provide a reference guide for delivering accessible medical care.
- To enable health care providers, meet the statutory requirements for accessible health care.
- To serve as a manual for training of staff in accessibility, in communication with people with disabilities and in taking care of special needs of PwD.

2.2.Legislative and policy context

As per Census 2011, out of the 121 Crore population, about 2.68 crore persons in India are Persons with Disabilities, which is 2.21 % of the total population. According to The National Policy for Persons with Disabilities (2006), persons with disabilities need an environment that provides them equal opportunities, protection of their rights and full participation in society. India is a signatory to the Declaration on Full Participation and Equality of People with Disability in the Asia Pacific Region (2000).

India is also a signatory member of the Biwako Millennium Framework (2002) for action towards an inclusive, barrier free and right based society for persons with disabilities in Asia and the Pacific. The Biwako Plus Five (2007) emphasized further efforts towards an inclusive, barrier free and right based society for persons with disability in Asia and Pacific.

India is also a signatory to the UN Convention on Rights of persons with Disability (UNCRPD). It ratified the convention in 2007. The Convention, which came into force in 2008, emphasizes on and strengthens protection for persons with disabilities in relation to health and rehabilitation. As per article no. 25 of UNCRPD, people with disabilities have the right to enjoy the highest attainable standard of health without discrimination on the basis of disabilities and it further guarantees the rights of persons with disabilities to access rehabilitation services of all kinds. Access to healthcare services is also supported by Sustainable Development Goals that give paramount importance to access to healthcare to ensure inclusive development. Lack of access to healthcare limits the PwD approach to healthcare providers not only for getting treatment but also for prevention and rehabilitation purposes. They avoid going to a facility that limits their independence in getting the required healthcare. The right to rehabilitation is more broadly set forth in Article 26 of the UNCRPD.

No person with disability should be discriminated on the basis of disability and he or she should be provided full and equal enjoyment of goods, services, facilities, privileges, advantages and a public or private accommodation. The accessibility should address all possible barriers, including environmental, architectural, logistical, Social and cultural.

Persons with disabilities should not be excluded and denied services or otherwise treated differently because of absence of auxiliary aids or appliances. They are required to visit the medical facilities more frequently than others as in addition to medical care, they also need certificates for different purposes including for getting disability related benefits and require repairs or replacement of assistive aids and appliances. Physical accessibility of doctor's chambers, clinics and hospitals is essential in providing medical care to persons with disabilities. Designing accessible health care environment requires taking care of engineering and architectural issues, aesthetics, industry standards, safety issues and cost along with the environmental issues. It must be ensured that the design of the healthcare facility provides appropriate visual conditions, good acoustics and noise control and easy dissemination of information. It is not only the physical infrastructure but also the services that should be easily accessible. Care must also be taken to meet the healthcare accessibility requirements of persons with mental, psychological and other invisible disabilities.

All the regulatory requirements of municipal corporation, state and centre must be met while creating an accessible healthcare infrastructure.

2.3. Health care providers

Health care providers that should be accessible are

- Hospitals
- Nursing homes
- Private clinics
- Others – Sub centres, Primary health centres, community health centres, Sub-district hospitals, district hospitals, first referral units, dispensaries, medical laboratories and diagnostic centres etc.

2.4. Disabilities

Disabilities that are to be considered while planning for accessibility are

- Physical or locomotor disabilities
- Auditory disabilities
- Speech and language disabilities
- Visual disabilities
- Cognitive disabilities
- Mental disabilities

2.5. Barriers to Health Care

Barriers to be removed for providing accessible healthcare may be

- Physical or Architectural barriers
- Communication barriers
- Attitudinal barriers
- Social / economical barriers

Factors that limit accessibility to healthcare include

- Distance to the healthcare facility
- Transportation problems
- Inaccessible physical structure of the facility
- Inaccessible environment in the facility
- Inaccessible services
- Lack of information
- Inaccessible physical and electronic information and communication material
- Inability to access and operate information and communication technology products and use multi-media contents and services
- Inaccessible equipment and furniture
- Lack of understanding of needs of persons with disabilities
- Staff untrained in removing the barriers
- Inadequate staff

- Lack of coordination among health care providers
- Negative attitude of staff
- Denial of treatment by staff
- Harmful practices, particularly while dealing with persons with psychological disabilities.

All these barriers require to be removed in a plan to provide accessible healthcare.

2.6. Creating Accessible Environment and Services

Creating accessible environment is easier and cost effective when the facilities are being created than creating by modifying the existing facilities. Many different codes of construction like National Codes are available and need to be applied. Access to healthcare requires the following to be accessible:

- Entrance to the premises of the health facility
- Path from the health facility entrance to parking
- Parking
- Front entrance of the building or accessible alternative entrance
- Doors
- Routes to move to the areas related to getting the required healthcare and other related services.
- Reception counters and service windows
- Writing desk/ table
- Seating/ waiting area
- Phone for voice, data and video communication and for access to various apps and services
- Amenities like toilets, bathroom, changing rooms etc.
- Information, including electronic information
- Room like examination room, laboratories etc.
- Medical equipment
- Aids and appliances for an easy approach
- Manpower trained in accessibility

2.7. Universal access or universal design

Providing universal access means the facilities are designed ensuring that the environment, facilities, services and products including ICT services and products can be used by everyone regardless of his ability or disability.

The design should be easy to understand. Its use should be efficient, without much physical effort and should take care of persons' comfort and safety.

2.8. Building structure guidelines

Details of accessible building features such as parking, ramps, staircases, lifts, washrooms and drinking water facilities etc. that are applicable to all public buildings, so are also applicable to health care facilities, are covered in Harmonized Guidelines and Standards for Universal Accessibility in India 2021. These guidelines and standards prepared by Ministry of Housing and Urban Affairs are available on CPWD website with link: <https://www.cpwd.gov.in/Publication/HG2021-MOHUA.pdf>.

Dimensions of space required in a particular examination, investigation or treatment room in a healthcare facility depends on the dimensions of the tables, chairs, lifts, equipment, accessories etc. that are to be provided in the room, space for mobility of the person with disability and space for wheelchair and other assistive devices. So the dimensions, in particular of furniture and equipment, should be available before planning to create the required infrastructure for the medical procedures.

3. Accessible arrival and departure zone (Loading Zone)

- The set-down and pick up points should be close to the entrance of the building.
- Main entrance board should be clearly visible.
- There should be smooth transition from entrance of the building to the loading zone.
- At the loading zone warning, a curb less walk is needed for persons with visual disability
- The accessible loading zones should be parallel to the vehicle pull up space and at least 2400 mm wide and 6000 mm in length.
- A marked access isle is required next to the vehicle pull up space.
- The access isle should not overlap vehicular way and should be 1500mm in width.
- Vehicle pull up space should be 2400 mm in width.
- Curb ramps should not overlap access isle or the pull up space.
- A vertical clearance of 2850 mm is required at the access isle and vehicle pull up space if there is an overhead structure.

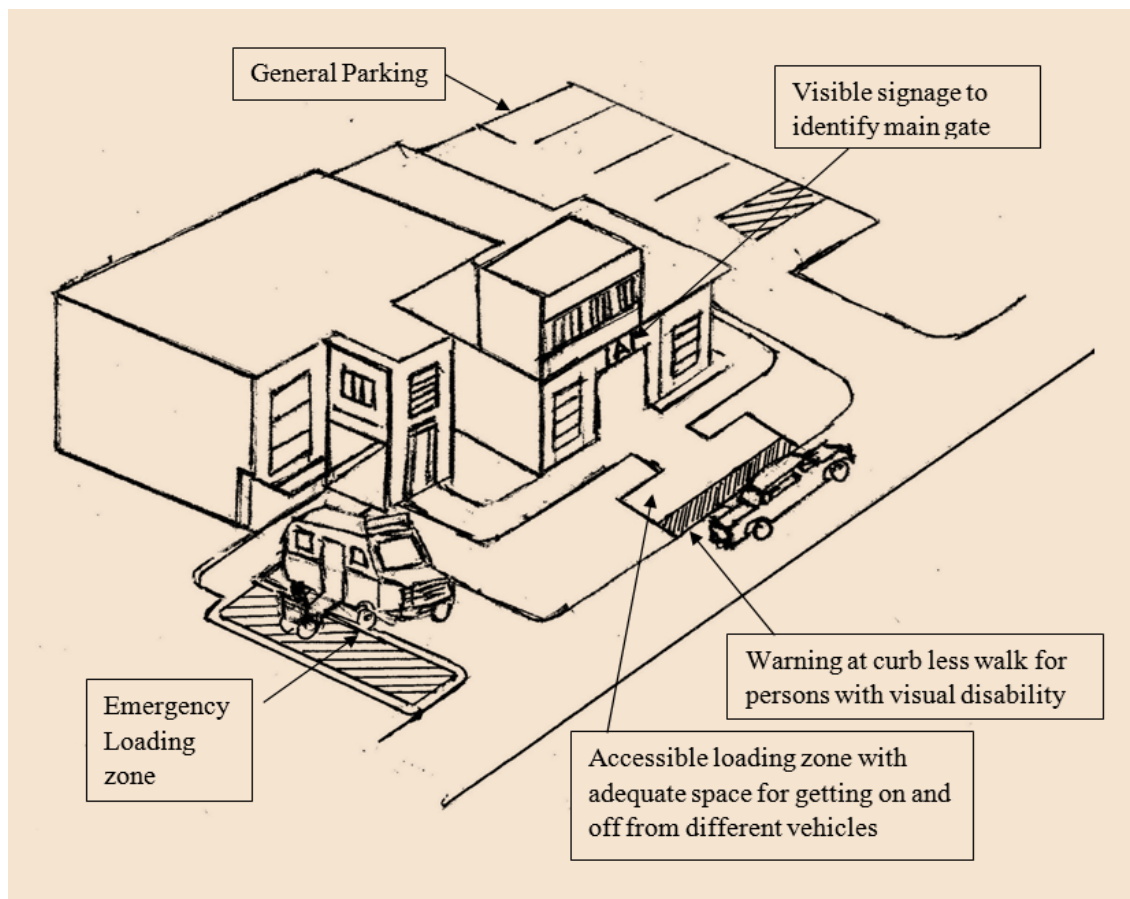


Fig1.1. Loading zone for persons with disability

4. Accessible Outpatient and Emergency Departments

4.1.Reception

- The reception should be close to the entrance with minimal internal and external noise.
- Reception desks should be two tier type to serve both standing as well as in wheel chair patients.
- The lower part of the two tier desk should have adequate knee space under it for wheelchair users. Top of the table/counter should be at a height of 750mm to 800mm from floor. There should be 750mm wide and 480mm deep knee space under the table/desk for a person in wheelchair. The top should be at a height of 950mm to 1100mm for a standing person.
- Those persons who cannot stand for long, should be provided chairs to sit even while enquiring at the reception counter.

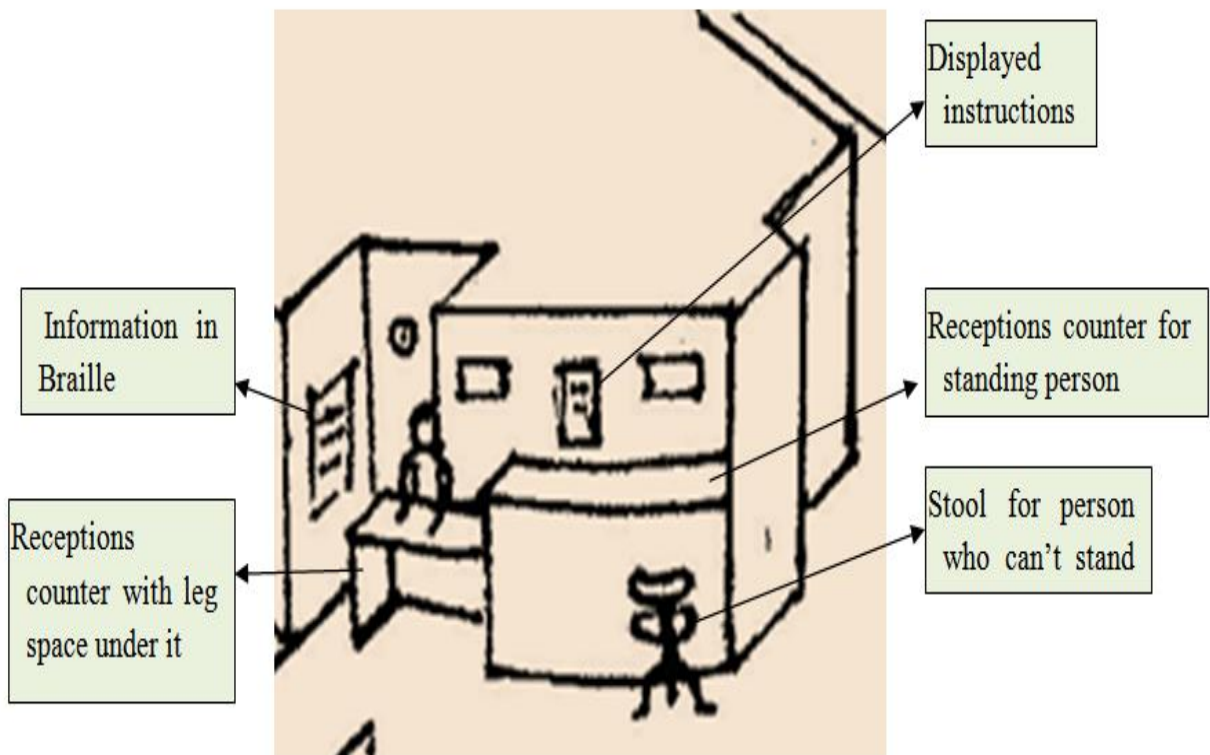


Fig.1.2 Accessible Reception

- Availability of loop system at the reception counter is useful for hearing impaired persons to facilitate those with hearing aids.
- The light on the reception counter should come from front of the receptionist. This helps in lip reading of the receptionist.

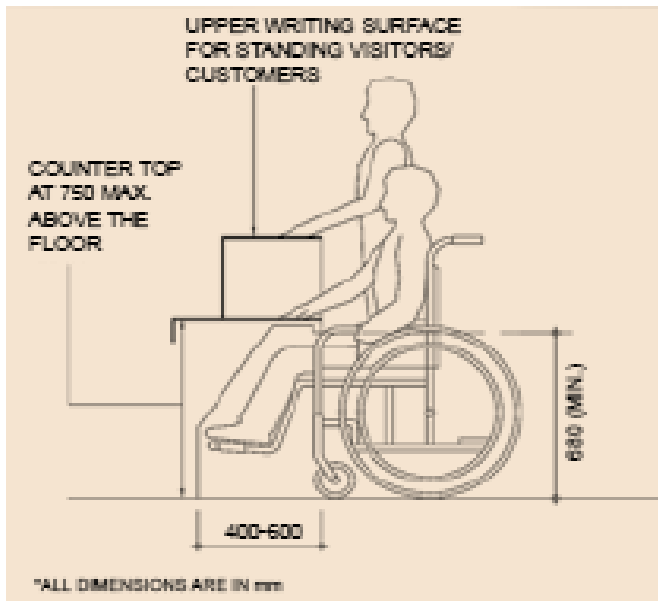


Fig.1.3 Dimensions of accessible reception

- There should be at least reasonable space for wheelchair mobility and turning in almost all parts of the centre.
- A Communication request form for Persons with hearing disability should be provided to persons with hearing problems.

Form B

Communication Request form for Persons with hearing disability

Patient or attendant of the patient having hearing problems may fill the form if he/she wants to use the available hearing aid for better communication. The hearing aids use is free of charge.

Patient / Attendant's name:

Patient's registration number:

If attendant, relationship with the patient:

Nature of disability: Hard of hearing / deaf / Speech impairment

Communication aid requested, please tick the aid:

- Interpreter (Indian sign language – Hindi/English/other. Please specify other.....)
- Interpreter on Mobile phone
- Remote video interpreter
- Assistive listening device
- If any other, please write about the type of device

Please wait till you get reply from the receptionist.

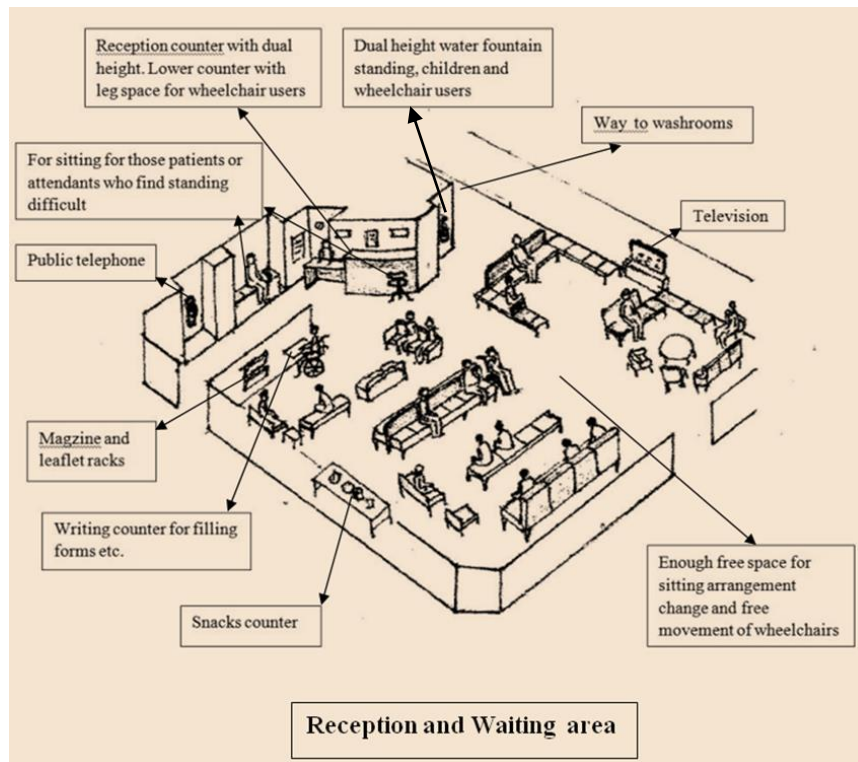
Fig.1.4 Communication request form for Persons with hearing disability

4.2. Waiting Area

Waiting area in an accessible health facility should have:

- Open areas for wheelchair and scooter use
- Adequate seating with at least some seats with and without folding armrests which are useful for taking support in getting up from the chair
- The layout that allows wheelchair user to remain in wheelchair but next to his or her companion who is sitting on a seat. For that, an adjacent wheelchair space of 1100mm width should be provided next to that seat.
- Upright seats with seat width 600mm and height 400-500mm
- Good lighting

- Notices written in large good contrast print and on a clear matt surface to reduce the glare
- Dual height drinking water sources
- Remote operated TV
- A reachable magazine rack
- Public pay phones with TTY
- Visual alarms along with auditory alarms



1.5 Waiting area

4.3. Writing table or counter

- For a person on wheelchair there should be enough knee clearance and toe clearance spaces under the table or counter
- The space of 230mm height above the finished floor surface is toe clearance and from 230mm to 800mm is called knee clearance space.
- The top of the table/counter should be between 750mm and 900mm high with knee space 750mm wide and 480mm deep.

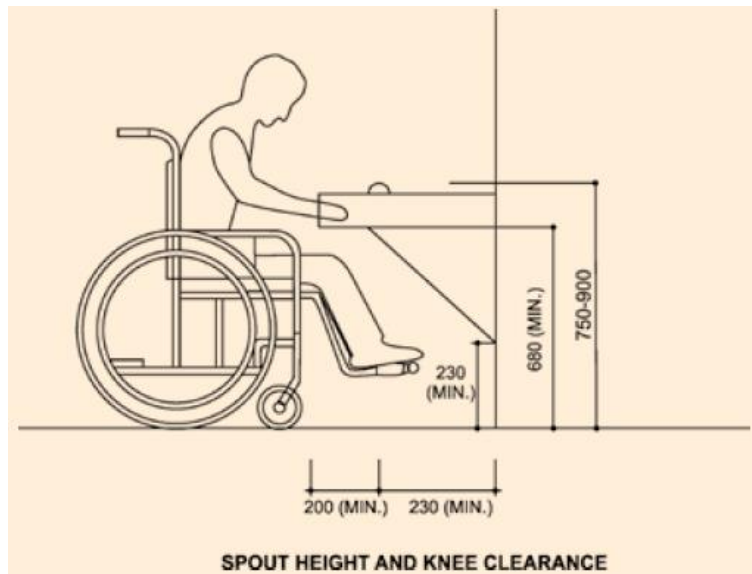


Fig.1.6 Writing counter for a person in wheelchair

4.4. Payment counter

- For a person in wheelchair, there should be knee clearance and toe clearance space under the counter
- The top of the counter should be at 800 mm to 900 mm height from floor to provide adequate knee and toe clearance space for a person in wheelchair. Knee space should be 750mm wide and 480 mm deep.
- Content of written material should be effectively communicated to persons who can't read the material.
- The currency notes or coins should be handed individually and counted.
- Facility of payment using mobile apps should be provided
- If payment is made by cards, the cards should be given in hand of the person and should not be left on the counter.

4.5. Washrooms

- The signs, symbols and pictograms for toilets are required to be at a height of 1500mm from floor.
- They should be in raised lines or figures that can be palpated or with Braille lettering.
- The door width should not be less than 900mm and the door should be opening with swing into the turning space in the toilet.

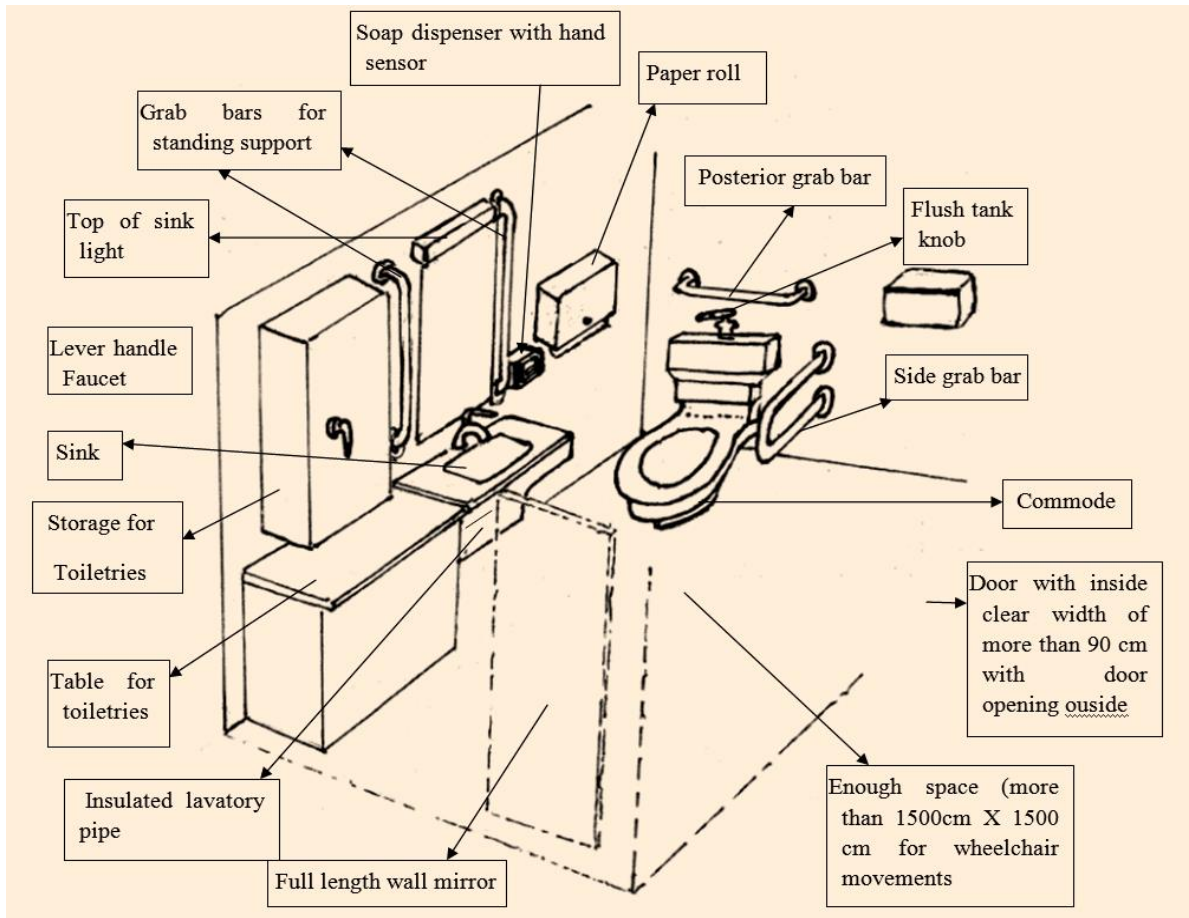
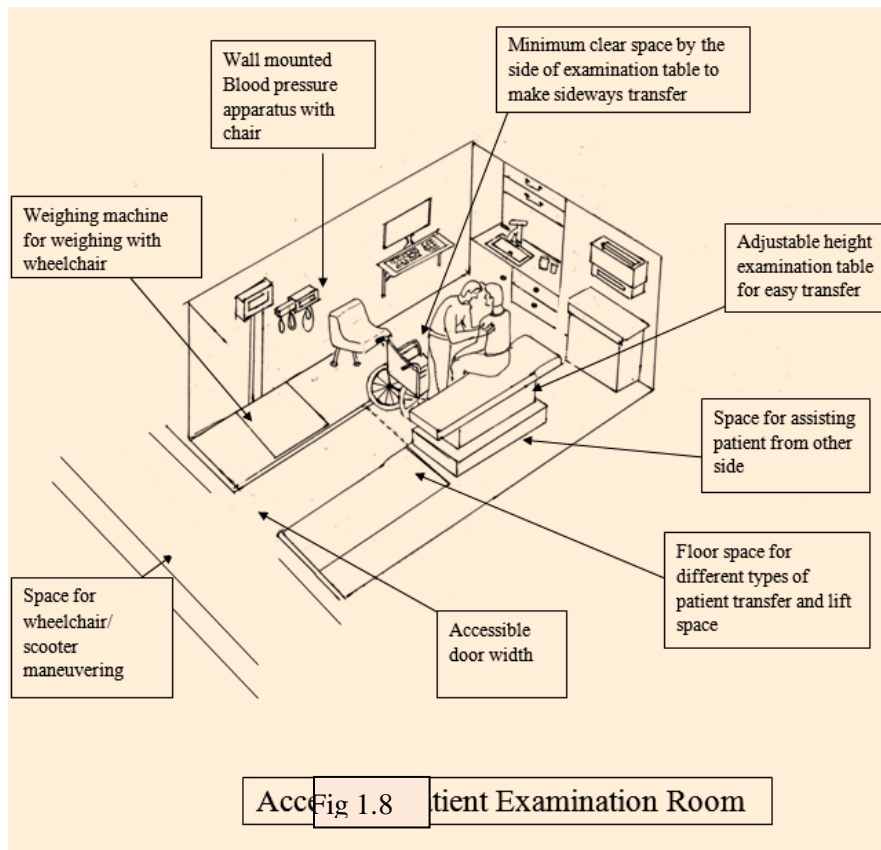


Fig.1.7 Accessible washroom

5. Accessible Outdoor Patient Care Zone

5.1. Patient examination room

- Route from the waiting area to the room should have minimum 900 mm wide clear passage.
- The entrance door should open to 90° and there should be a clear door width of 900mm.
- Space inside should be enough for turning of wheelchair, accessible hardware, accessible weighing scale to weigh a wheelchair, examination table that can be lowered to 400mm to 500mm, accessible equipment, grab bars and positioning aids etc. A wheelchair turning space of 1500mm diameter is needed inside the room.
- Adequate clear space is required in the room for using patient lift equipment and for patient transfers. For that, an area of at least 750 mm X 1250mm is needed along at least one side of an adjustable examination table.
- There should be, if possible, enough space on both sides of the examination table for easy transfer from any of the side that is convenient to the patient depending on his handedness or disability. Alternative to this is to have two examination rooms with space on opposite sides. All controls like door handles and light switches etc. need to be accessible and operable with a closed fist.



5.2.Changing room

- Changing room should have accessible door with a clear door width of 900mm.
- There should be a space of at least 1500mm x1500mm size for wheelchair turning inside the changing room.
- The seat should preferably be folding type.
- There should be a folding type horizontal grab bar on right hand side of the seat for changing clothes with upper part of bar at 680mm and lower part at 480mm height from floor.
- The centre of back of the seat should be at a height of 800mm.
- The lower end of vertical grab bar on the left side wall should be at a height of 750 mm from floor.
- There should be a horizontal bar on the left wall at a height of 750 mm above the bench for changing clothes.
- Coat hooks and selves wherever needed these should be minimum 1000 mm and maximum 1200mm above floor.

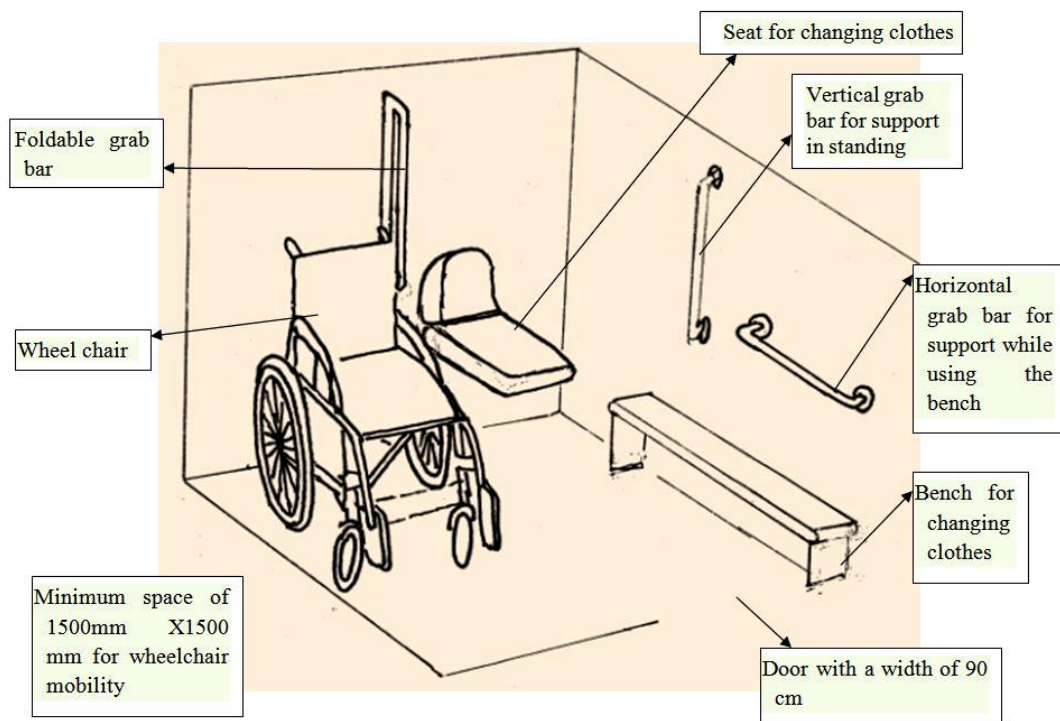


Fig. 1.9 Accessible changing room

5.3. Diagnostic laboratory

- The laboratory should have enough space for all direction movements of wheelchair of a laboratory technician in a wheelchair and a patient in a wheelchair. This is required not only for easy access to any area of the laboratory by the technician but also for safety as he or she may require to move away from spilled harmful chemical, fire, explosion or any other hazard.
- There should be enough height of the work surface along with knee space under the surface for the person in wheelchair to work. For that the surface should be between 750 to 850 mm above the floor surface.
- The depth of work station should be such that sink, water tap, soap dispenser, gas control and electrical switches are within easy reach of a person sitting in a wheelchair.

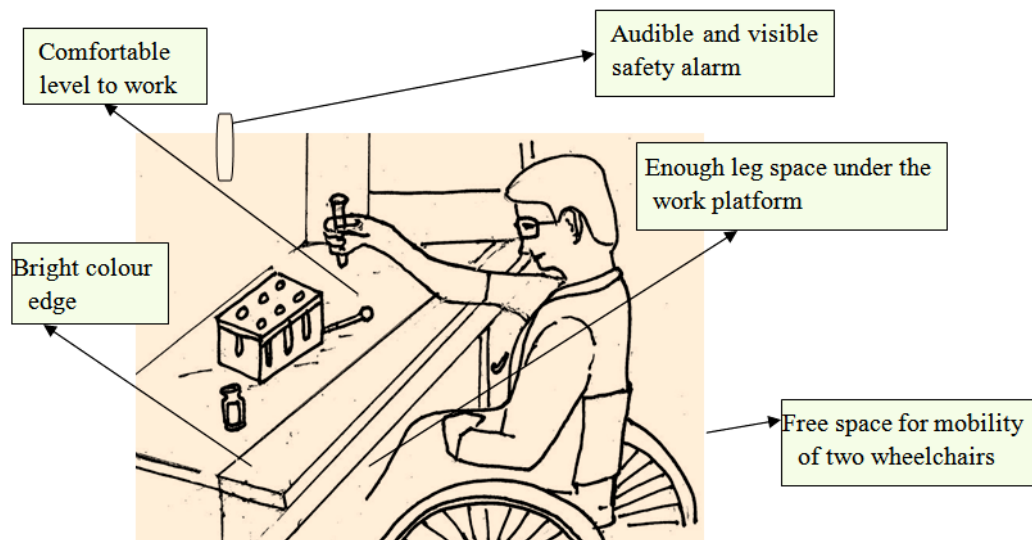


Fig.1.10 Accessible diagnostic laboratory

- For persons with low vision, the surfaces and controls should be in contrasting colours. The signage should be easily understandable. Any warning signal like fire alarm, smoke or gas alarm should be flashing for the persons with hearing disability and should be audible for persons with low vision.
- The patient's chair or stool, if with fixed height, should be at the level of seat of a wheelchair otherwise they should have adjustable height for easy transfer.
- Accessibility of lab reports in soft copy should be ensured.

5.4. Laboratory toilet

The entry should be accessible with inside clear door width of 900mm a clear space of 1800mm x 1800mm inside the toilet. The sink should be easily accessible.

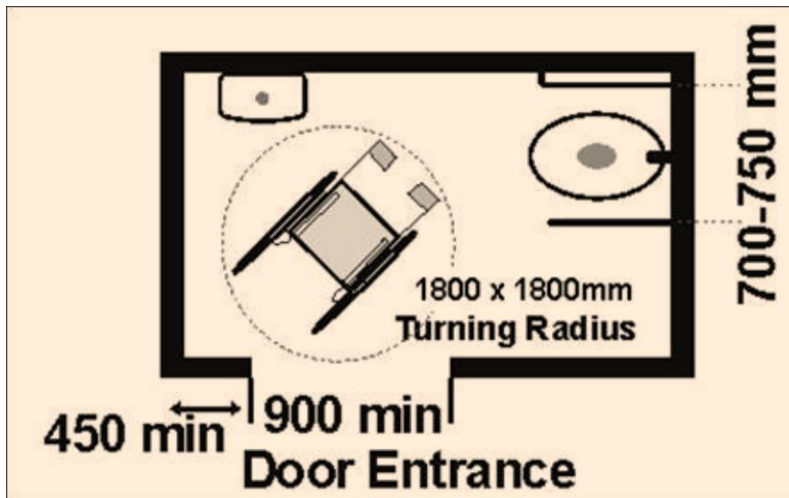


Fig.1.11 Accessible laboratory toilet dimensions

5.5. Dressing room, plaster room and minor procedure room

- An accessible plaster room and minor procedure room need to have an accessible door.
- There should be a wheelchair turning space of 1500 mm X 1500mm
- Dressing/ Plaster table with height adjustment, reclining back, adjustable and removable foot and leg rest, adjustable and removable arm rest
- The tables for dressing, plaster application or minor procedures should be with adjustable height from 400mm to 700 mm from floor surface.

5.6. Pharmacy

- The pharmacy counter should have an accessible path to approach.
- There should be enough leg space under the counter for a wheelchair user. For that depth of the counter from outside should be 480mm to 500mm.
- Height of the counter should not be more than 1000mm.
- There should be good light at the counter so that a person with low vision can read the labels of medicines and other medical consumables.
- Clearly visible display of medical items is useful to persons with speech or auditory problems.

- E-prescriptions are to be in an accessible form. The hospital information system and e-pharmacy modules should be designed to produce the soft copies of e-prescriptions in accessible format.

6. Accessible Indoor healthcare

6.1. Ward

- The accessible beds in a ward should be with provision of height adjustment. The bed height should be adjustable to lower level of 400mm to 450mm from floor for easy transfer from a wheelchair to bed and vice versa. A sliding board may be required for transfer.
- Hoists, monkey poles or ceiling lifts are required for transfer of patients from one surface to another. To use the hoists and floor patient lifts, sufficient space is required around a bed and clearance is required under the bed for the lift's limbs to be fitted from side as well as from the leg end of the bed. Hoist base should be of the width that can go under the bed from both sides and leg end of the bed.
- Space of 1500 mm X 1500 mm is required for a manual or motorised wheelchair to turn beside a bed.
- The toilets and bathrooms in wards should be easily accessible with hand rails along the walls.
- A person with disability should be allotted a bed that is close to an accessible toilet and washing facility.
- If telephones and televisions are provided, the TV programmes should be with subtitles for persons with hearing problems.
- Televisions with closed captioning and decoders are useful.
- Some persons may hear better in a quiet room. Hearing loops, listening devices, TTYs (teletypewriters) and telephones that are hearing aid compatible and have volume control should be provided to patients that are deaf or hard of hearing.
- Persons with mental problems may be better managed in a single or isolated room.
- Visual alarms are not required in patients' rooms.
- Facilities for safe evacuation in case of emergencies for all types of disabled should be in place.
- At mealtime a person with impaired vision should be told that the meal has arrived and has been served in front of his/her.
- He should be informed about arrangement of food items in the plate.
- For persons with visual impairment, cutlery and utensils of different bright colours for different type of food items are useful.
- Assistance, if required, should be provided with consent of the patient.
- Adaptive devices, aids and appliances required for independent eating should be made available.

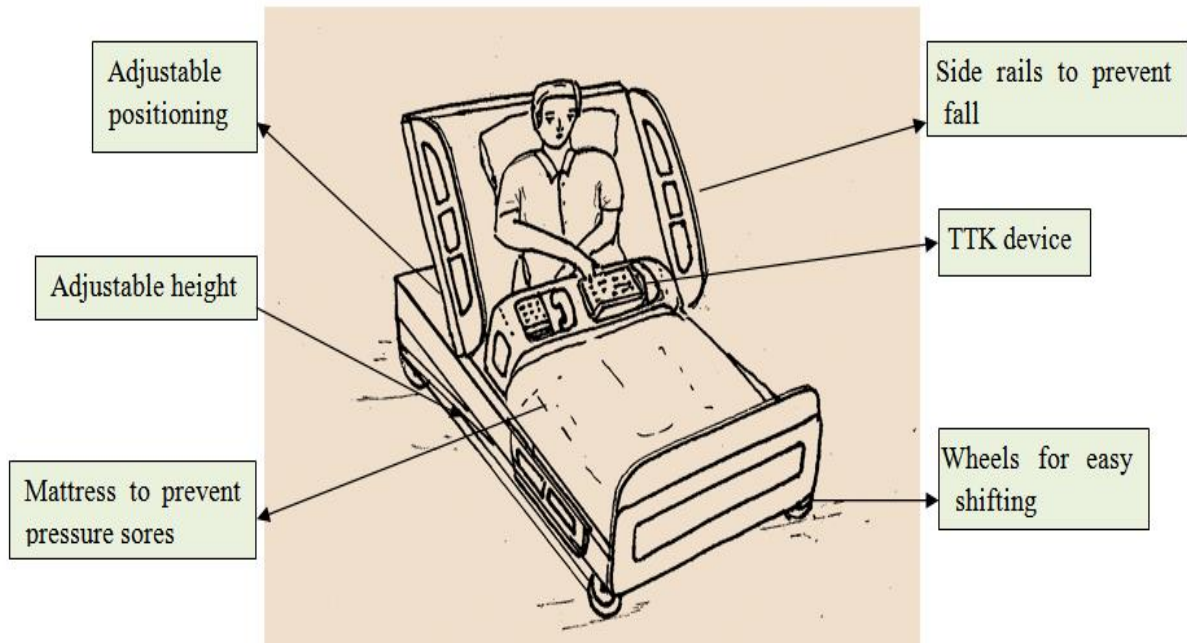


Fig.2.1 Accessible hospital ward

6.2. Maternity ward:

Following facilities are required for accessible maternity services:

- The ward should have height adjustable beds and accessible gynaecological examination couch.
- A hoist or patient lift should be available.
- The delivery suite should be accessible.
- Hand rails should be provided for walking between departments should be provided.
- Signage should be clear and bright and language of the signage should be language of common use.
- The toilets, both in waiting area and delivery suite should be accessible.
- Accessible shower and bath facilities
- Proper spacing between beds for wheelchair and hoist/ lift movement.
- Paths without any obstacles.
- Accessible weighing scales.
- Height adjustable baby cots, incubators and baby bath facilities
- For visually impaired - written information in large prints and Braille
- For hearing impaired - A portable hearing loop particularly in waiting room and labour room
- Alarms should with flashing lights to be easily visible and should also be audible.

- For persons with intellectual or cognitive disabilities, explanations should be given in a simple language.

6.3. Ward bathroom

I. Roll-in type

- Standard roll-in type of bathroom compartments should be minimum 760mm wide and 1500mm deep.
- A curb should not be more than 120mm high and should be rounded.
- Controls should be installed at no more than 670 mm away from shower seat.
- Rest of the features may be same as given below for transfer shower.

II. Transfer shower

- Inside dimensions of bathroom should be minimum 900 mm X 900mm
- Folding or non-folding type of seat that can withstand 125 kg weight.
- Shower controls should be positioned at 900 to 1100mm height from floor.
- Tap should be mixer type and faucet should be lever type.
- Grab bars should be able to support at least 125 kg load.
- Distance of grab bar from wall should be 40 mm.
- Towel rail should be at 900 mm to 1100mm above floor.
- Coat hooks and selves if provided should be minimum 1000mm and maximum 1200mm above the floor.
- Floor should be non-slippery.
- Bathroom should have good light.
- The switches and controls should be between 900mm to 1000mm above floor.

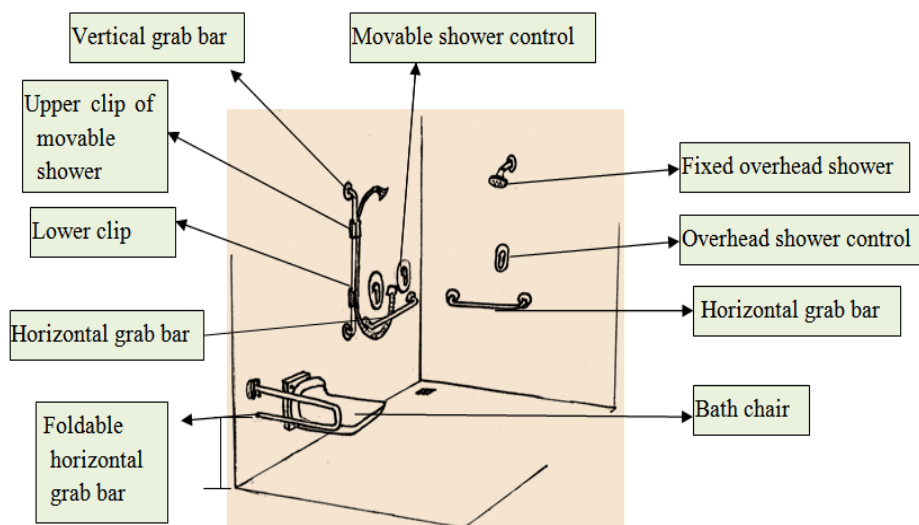


Fig.2.2 Ward bathroom

4. Emergency Exit

- To go out in case of an emergency, the path should be with a clear width of at least 1200mm for a wheelchair and a person to pass each other.
- As lifts are not to be used in some emergencies, ramps are also required.
- Stairs should not be part of an accessible emergency exit route.
- The stairway serving an area of rescue assistance should be 1250mm wide between the handrails.
- Orientation and direction signs should be clearly visible, large in size and easy to understand.
- The path of exit should be clearly marked preferably with way lighting system.
- The path should be without obstacles and there should be emergency lights and alarms installed.
- The doors in the route should be accessible.
- The exit signage above the exit door should be internally illuminated.
- The area where the wheelchair users wait for assistance, provides at least two clear spaces of 750 mm x 1250 mm.

7. Accessible medical equipment and furniture

Many of the medical equipment and furniture, as physical objects, are usually accessible to all persons with disabilities. But some medical equipment and furniture have features, which make them inconvenient to be used for or by persons with disabilities. To make them accessible these features are either modified or removed and additional features may be provided. Some equipment and furniture specifically designed for persons with disabilities are easier to be used by other persons also. If accessible equipment and furniture are available, their use depends highly on structural dimensions of the rooms and other constructed structures in which they are installed or housed. For example use of an accessible patient examination chair requires easy access to the examination room and sufficient space in the room to maneuver the wheelchair. Similarly, a ceiling track lift requires a strong ceiling structure. Along with this, their use also depends on training of manpower that uses them. From patients' point of view, accessibility requirements remain the same whether the healthcare facility is large or small or the use of an equipment is for diagnostic or therapeutic purposes. It largely depends on what services the patient wants to avail.

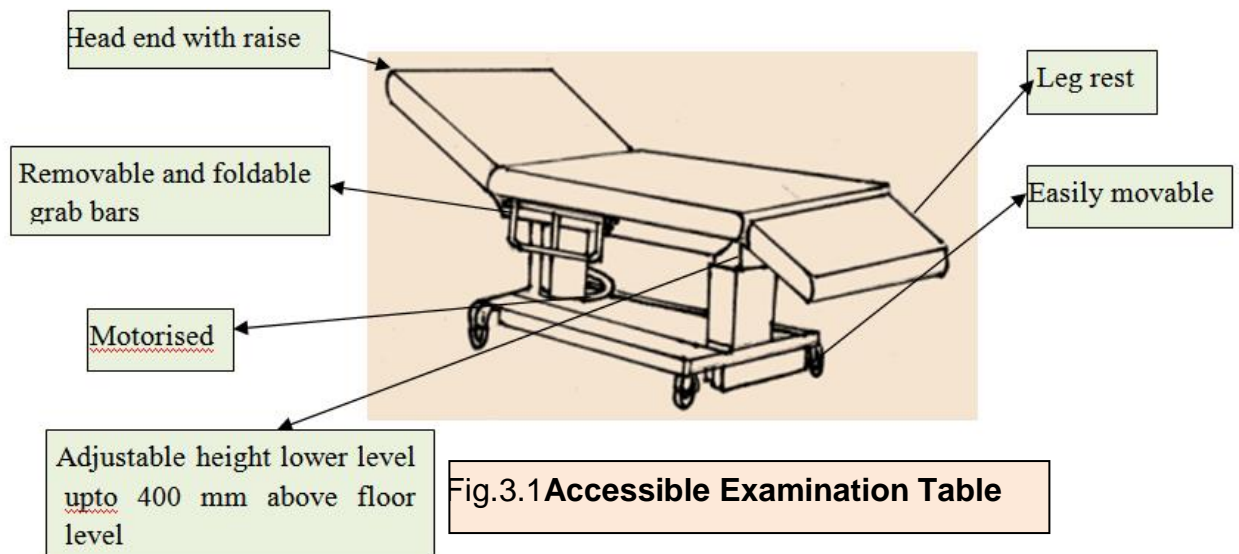
Accessible medical equipment and furniture are so closely linked to providing health care to persons with disability that they need maximum focus while planning for accessible medical services. Because of lack of accessible medical equipment and furniture the patient may hesitate in accessing and the service provider in providing healthcare. For example, if the examination table in the examination room is not accessible the patient may not like to be helped every time he visits the facility, so may avoid getting the services as far as possible. In absence of accessible diagnostic equipment, physicians may perceive barriers in taking care of patients with disability. A medical examination table must have required height for easy transfer and examination. For that, height adjustability makes an examination table more accessible to the patients. To have an examination table with feature that make it accessible only is not enough, it will not be accessible if there is not enough space in the room for maneuvering a wheel chair.

In a patient examination room, diagnostic procedure room or a treatment procedure room, space is an important architectural factor. In addition to the space required for examination or treatment table, adequate space is also required for transferring the patient which can be table's side transfer or the end transfer. If a person's help is required in transfer of a patient to a table or bed, additional space is required for the helping person to stand on the opposite side of the table or bed. Space is also required for using a patient hoist for transferring a patient. If a portable hoist cannot be used because of space constraint and the patient is to be transferred frequently a

ceiling lift may be an option. For an accessible medical facility, it is required to follow both, the regulations for medical equipment and furniture as well as regulations for architectural modifications.

7.1. Examination tables and chairs

Examination tables are used for examining the patients in supine, prone or side-lying position. Most of the examination or treatment tables in the healthcare facilities are with fixed height of 800mm. Persons with locomotor disability find it difficult to transfer themselves independently from their wheelchair onto the tables and vice-versa. Sometimes, even some standing patients find it difficult to get onto the table.



- The examination table should be with adjustable height with minimum height of 400mm to 500mm.
- Two major advantages of height-adjustable tables are that they make patients' transfers easier and safer compared to fixed-height tables. They also help the physician in examination by providing the required height.
- The table should also have adjustable head and back support through the entire inclination range.
- The tables should have good enough cushioning on top to prevent pressure sores.
- They should be with removable side rails to prevent falls. If required additional safety stirrups, straps and neck supports option should be available

- They should have sufficient length and width for easy lying, turning and transfers.
- The transfer board surface usually needed is 1000 mm X 400 mm which prevents it from rotating.
- People using mobility devices must be able to transfer safely and easily to and from your exam tables and chairs.
- They should have a remote to adjust the height using powered bed position and height controls and call buttons.
- Required accessories may be leg supports, articulating knee crutches, stirrups with flexible degrees of freedom for pelvic examination etc.
- The table should be with minimum clearance of 150 mm above the floor and the equipment overhangs clearance. The clearance permits a portable floor lift to be used for transferring patients.
- Minimum clear floor space of 800mm X 1250mm next to exam tables is required for easy transfer of patients onto the tables.
- The weight capacity of the table should be about 250-400 kgs.

7.2.Lifts for shifting persons with locomotor disability

7.2.1. Portable floor lift

These lifts are easy to be carried to different rooms and areas of the healthcare facility which can't be done with the other types of lifts, the ceiling mounted or floor fixed lifts. They usually require space under the table or bed for its legs or base. These can be used as portable weighing scales as well for the patients that find sitting in a wheelchair difficult. When the base width is made adjustable the legs can be positioned both under and by the side of examination table or a chair depending on requirement.

7.2.2. Over head track lift

There are three types of overhead lifts: Ceiling mounted lift, lift mounted on a frame which is fixed to floor and lift which is not fixed to floor.

Ceiling mounted lifts are fixed structures where lift is attached to a motorised structure which moves on a track fixed to ceiling. This does not require extra space on floor for wheelchair maneuvering, so the rooms that do not have space for wheelchair mobility but are to be modified for patient, this type of lift is useful. Disadvantages of this type of lift are that it can not be moved to another room and is costly. The ceiling structure should be strong enough to take load of both the lift and the patient.

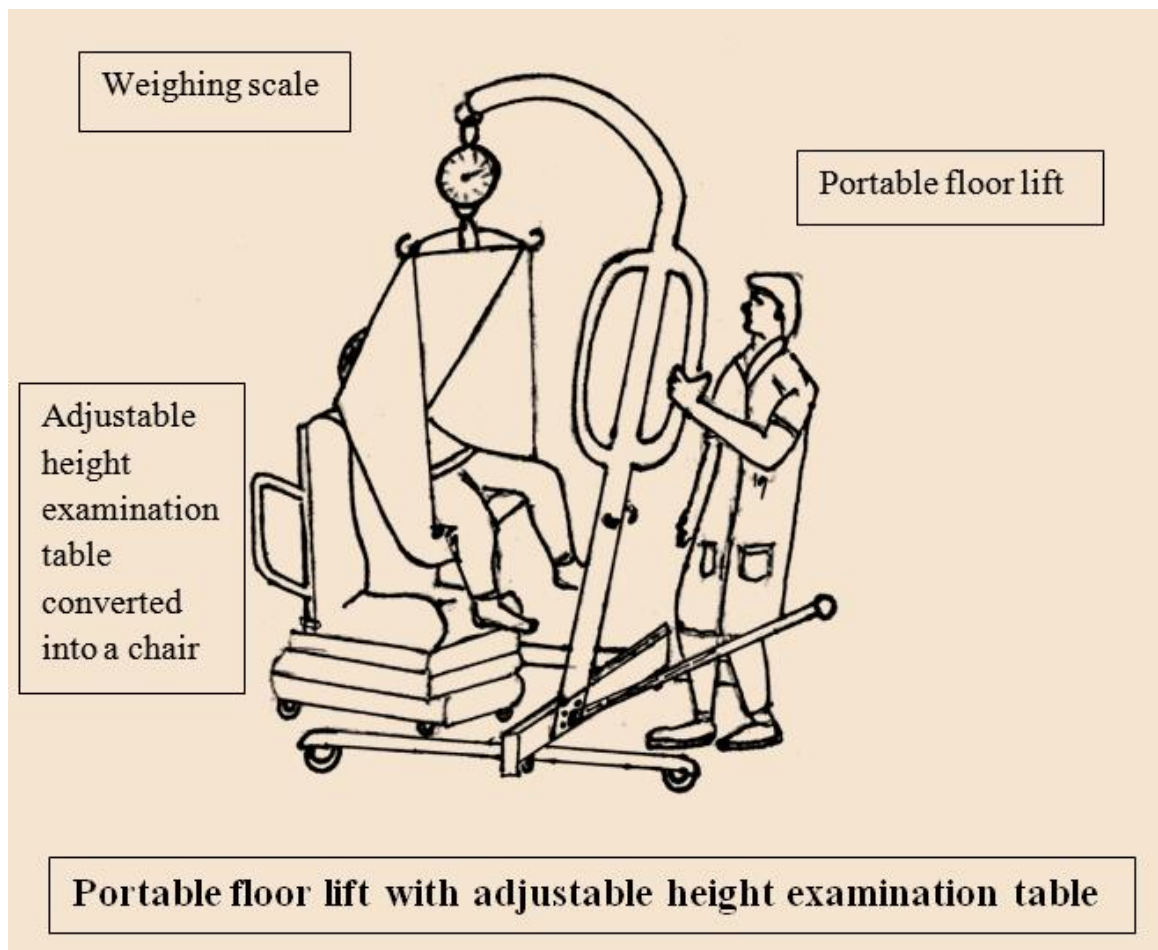


Figure.3.2

7.2.3. Lift mounted on a frame fixed to ground

These lifts also can not be moved to other rooms. These lifts require less space than the free standing movable lifts. They usually do not need the space required by free standing and portable lifts so are suitable for small rooms. They do not need the ceiling to be strong and do not require any structural changes.

7.2.4. Lift mounted on a free (not fixed to ground) frame

These lifts can be moved to other rooms but require more efforts than the portable patient lift. These lifts require less space than the portable lifts. They usually require space for base of the lift, so are suitable for small rooms. They do not need the ceiling to be strong and do not require any structural changes.

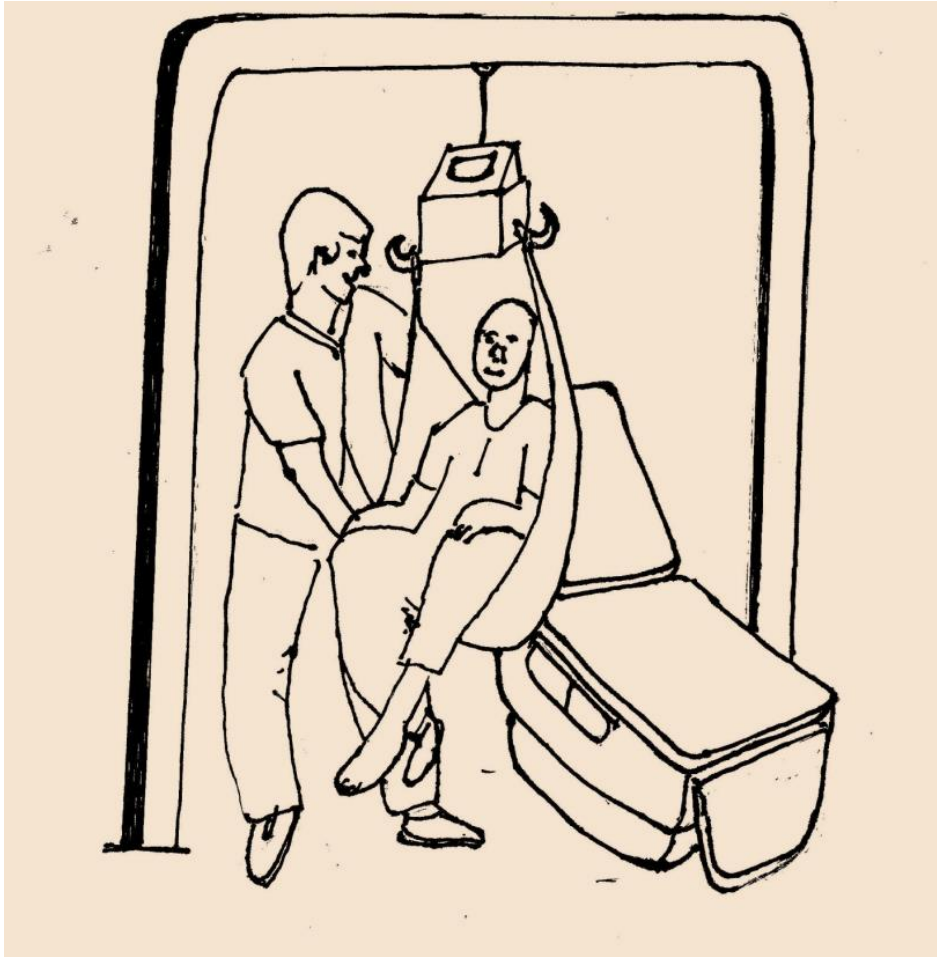


Fig.3.3 Fixed overhead patient lift

7.3. Gynaecological examination table

- Gynaecological examination requiring specialised positions must be accessible to a woman with disability.
- To provide accessible gynaecological examination to a woman with paralysis or other conditions who finds it difficult to move or support her legs, an examination table with adjustable padded leg supports instead of typical stirrups should be available.

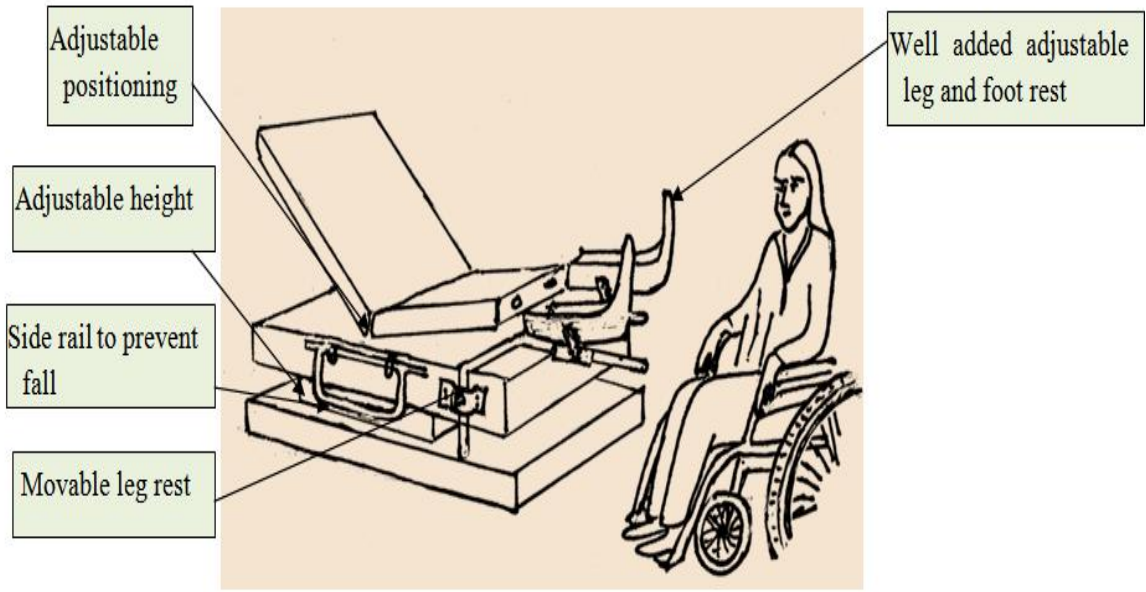


Fig.3.4 Accessible Gynaecological examination Table

7.4. Radiological Diagnostic equipment

Persons with disabilities having weakness or spasticity of muscles, balance problems or structural posture problems etc. can't be positioned on certain radiological diagnostic equipment like MRI, CT, DEXA Scan, Mammography etc. or they find it difficult to use. Some specific changes in design or provision of accessory features can make them easier to be used by persons with disabilities. Following are some of the common features that can be incorporated in the equipment to make them accessible:

- Equipment with height adjustment for easy transfer of the patient and width adjustment for comfortable change in position from prone to side lying or supine.
- Large opening of CT or MRI machine.
- Visual signals
- Commands in loud and clear voice
- Presence of straps to stabilize position
- Side rails for support to prevent falls and stabilize his or her position to get good quality report.
- Ceiling mounted x-ray equipment can save the space for wheelchair mobility in a smaller space.
- C-arm and CXDI series of X-ray devices may be quite helpful in getting good quality X-rays when positioning of a person with disability is a problem.

7.4.1. Mammography equipment and Chairs

For mammography of a person with disability a wheelchair with folding arm rests may be good enough. If a patient is brought for mammography in a wheelchair with fixed arm rests, a mammography chair with adjustable seat height that lowers to a minimum height of 500 mm to 550 mm, adjustable seat depth, reclining seat back and removable or folding arm rests is useful.

For diagnostic mammography

- There should be sufficient clear knee space from the stand to the front edge of the imaging receptor to enable wheelchair users to go into position for mammography without running into protruding imaging platforms or tube heads connected to the central stand. The imaging receptor should be adjustable up to the lower level of 600mm from floor. Position stabilising straps and pillows etc. should be available as accessories.

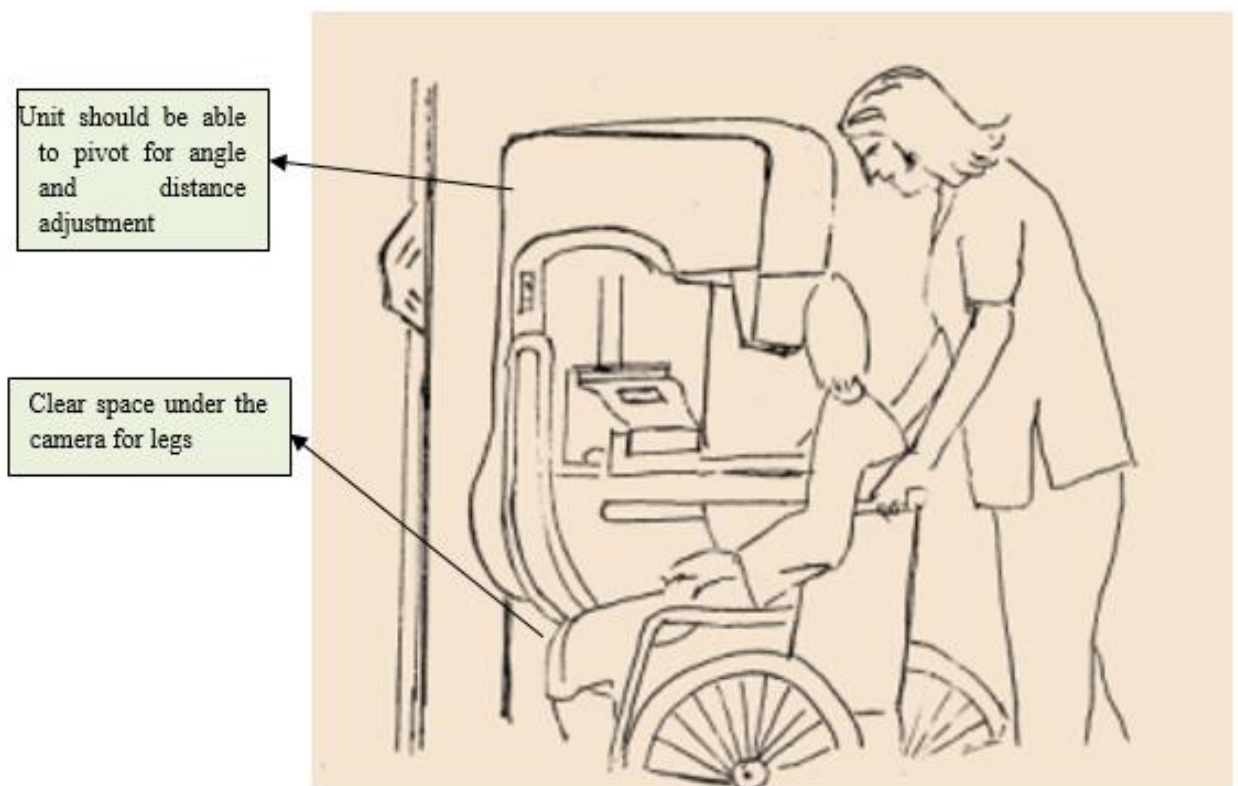


Fig.3.5 Accessible Mammography equipment

- Some patients need support to lean forward.
- The unit should have provision to pivot for angle and distance adjustment.
- The path to the equipment need to be accessible.
- The position of the equipment should allow forward, side as well as angled approach.

7.4.2. Densitometer with adjustable height stretcher

Most of densitometer are with fixed height, so a gurney with adjustable height upto lower level of 450 mm from floor height which is the level of wheelchair seat is required.

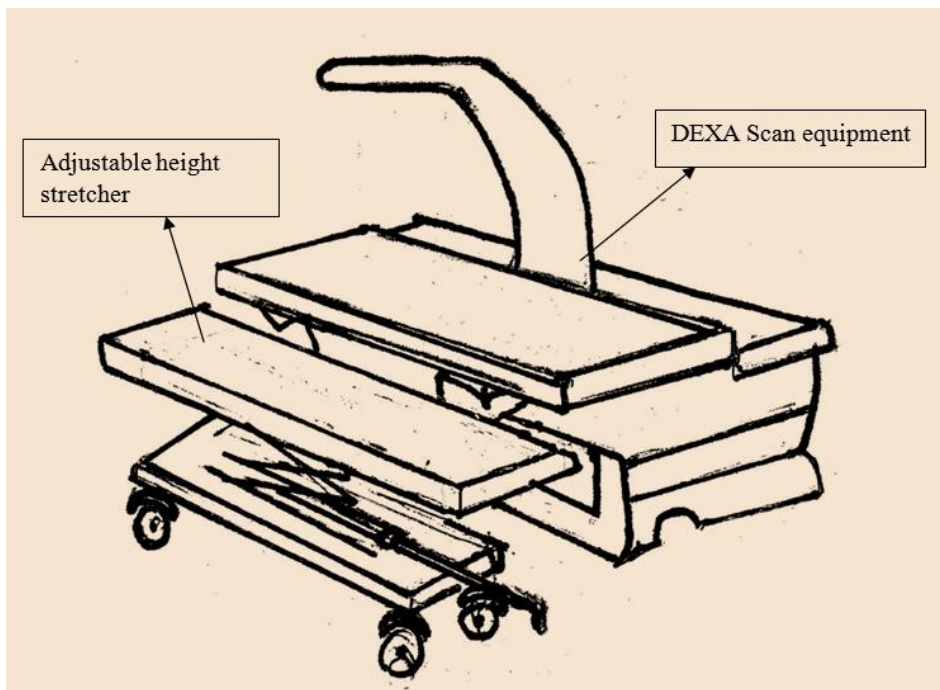


Fig. 3.6. Densitometer with adjustable height stretcher

7.5. Weighing scales

Weighing a patient is needed in management of many medical conditions like Obesity, Diabetes mellitus, Cancer etc. Using a normal weighing scale may be difficult for a person in wheelchair as the wheelchair can't be taken onto the platform of the equipment. Accessible weight scales should have the following features:

- A platform onto which a wheel chair or scooter can be taken up and stabilized. The width and length of the platform should be sufficient for the purpose.

- The surface of the scale should not be slippery and should not allow the wheelchair to move if stabilized so should have slip resistant platform with high contrast edges.
- The weighing capacity of the scale should be high i.e.a minimum of 250 kg.Weight of a wheelchair or a scooter should be easy to be calculated.
- It should have a large digital display with sound announcing the weight.
- For a patient who needs support for standing, the scale should have hand rails.

Accessible weighing scales that are integrated into other medical equipment as into a hoist or a bed are also available. There are weighing scales that are foldable and portable. With the provision of accessible weighing scale, the staff weighing the patient should be trained for the purpose.

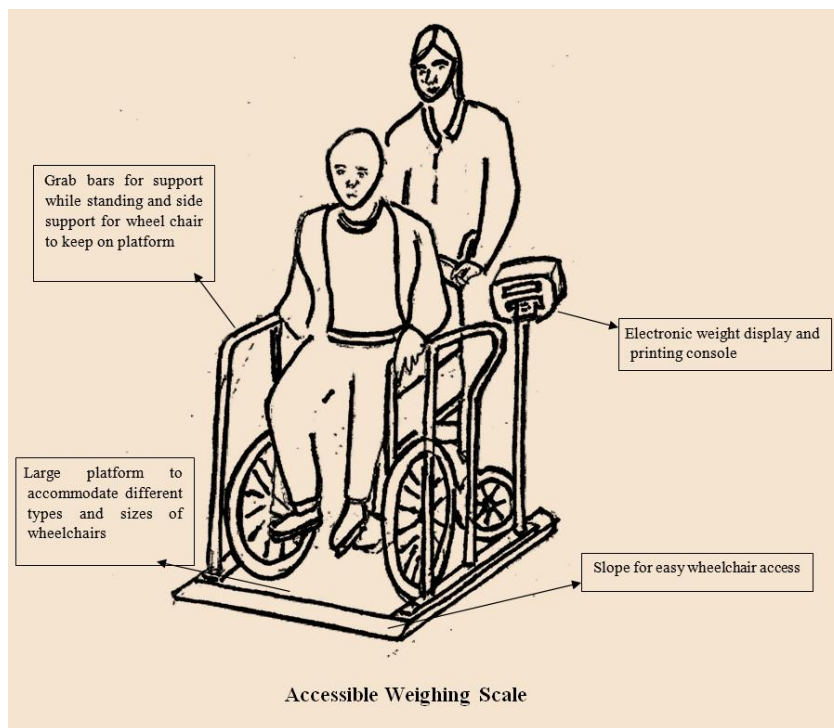


Fig.3.7 Accessible weighing scale

7.6. Commodes and shower transfer benches

The shower benches and commode chairs should have following features:

- Portable with folding support rails
- Facility to transfer laterally
- Height adjustability
- Non-slippery legs

- Padded seat to prevent pressure sores.
- Easy transferability by sliding or rotating the seat
- Convertibility of shower transfer bench into commode by taking out the removable part of the bench.

7.7. Complementary and Alternative medicine Equipment and furniture

A standard medical facility for complementary and alternative medicine treatment requires

- A patient examination and treatment table with height adjustment upto minimum height of 400-450mm and with sufficient width for safe transfer and positioning
- Supportive cushions, straps and rails

For treatment like massage and some other ayurvedic treatment, the tables are typical and are available in market but they should have all the accessibility features.

7.8 Hospital cribs and incubation units

The area should be accessible to the mother with disabilities for breastfeeding, bonding and comfort giving.

The cribs and incubation units should have legs with adjustable heights to provide required leg space to a mother in wheelchair to approach her baby.

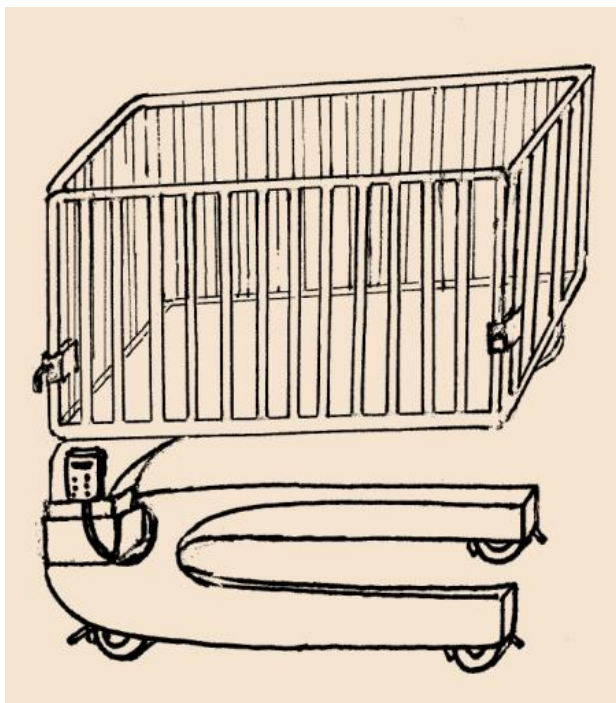


Fig.3.8 Accessible hospital crib

7.9. Ophthalmology and Optometry Chairs and Tables

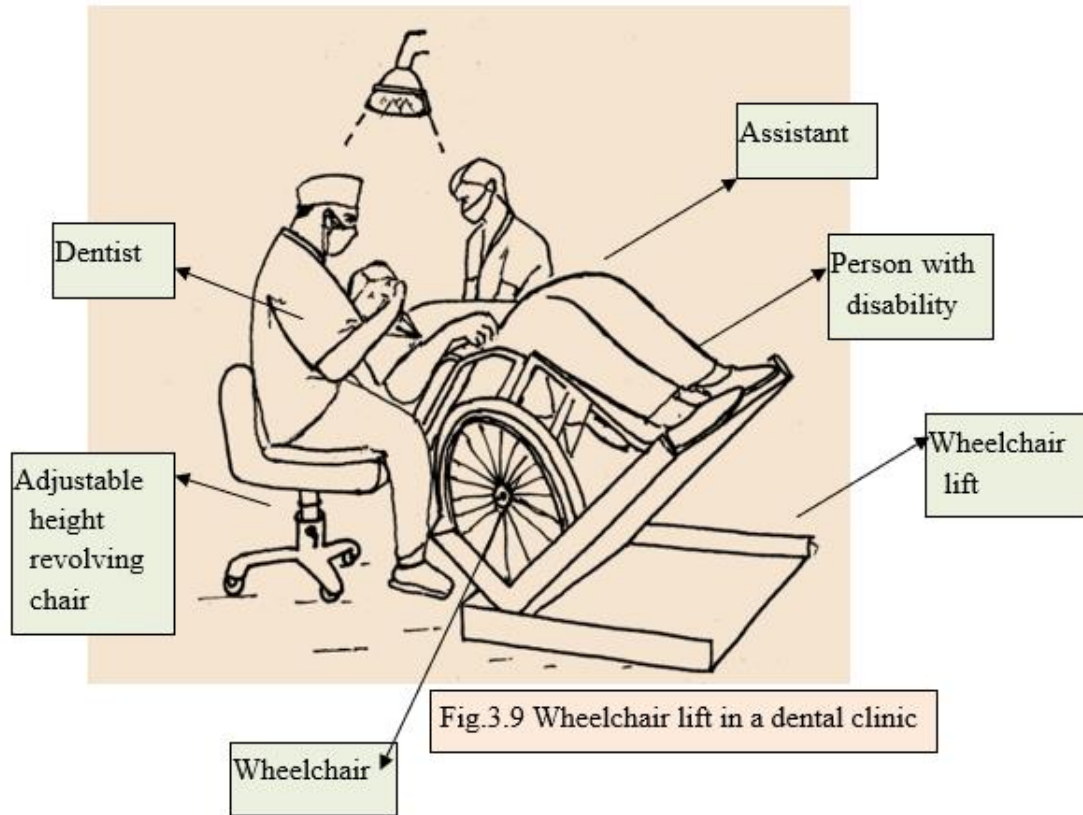
An accessible ophthalmic chair should have following features:

- For ophthalmological examination of persons with disability the examination chair's height should be adjustable to lower level of 450 cm for independent transfer from wheelchair to the examination chair.
- Sufficient space is required around the chair for the independent transfer to maneuver the wheelchair.
- Transfer from wheelchair may need portable hoist or patient lift.
- The chairs are usually fixed to floor to access the refractive equipment easily so wheelchair maneuvering space is required.
- The ophthalmologist's chair should be easily maneuverable in the space available so that the examination is possible while the person is sitting in wheelchair.
- Height of the chair should be adjustable with minimum height of 400-450mm from floor to the top of seat.
- The floor rest should be movable and detachable.
- Arm rests should be foldable or removable.

7.10. Dental Chair

Dental examination and procedures for preventive or curative purposes require a dental chair. The accessible dental chair should have following features:

- Provision to set at different angles of inclination
- Adjustable height with minimum height of 400-450mm for easy independent transfer from a wheelchair.
- A reclining seat along with reclining back is useful in positioning of knees in 90degrees.
- Accessories like belts and straps
- Adjustable dental equipment and light source to be used at different height even for a patient who is in a wheelchair.
- Wherever possible it is preferable to use a wheelchair lift which positions the patient in a wheelchair so that dental examination and procedures can be done without shifting the person to a dental chair.



7.11. Birthing chairs

Some centres use birthing chair for vaginal delivery in place of hospital bed. The accessible birthing chairs are of two types

I. Fixed height and back rest type

- The seat of the chair should be at the level of wheelchair
- The arm rest should be foldable

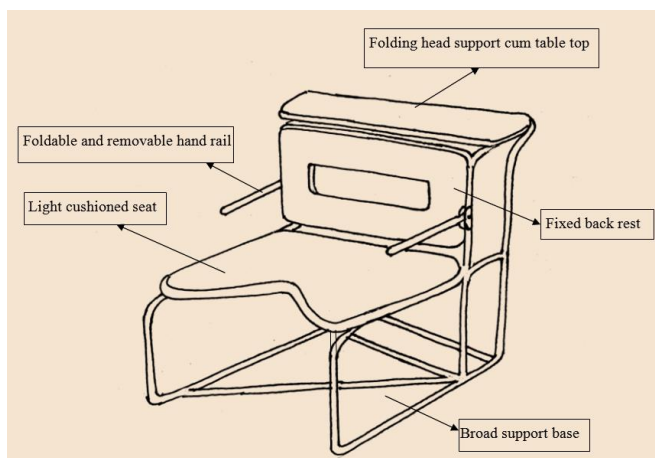


Fig. 3.10 Birthing chair fixed height and back rest

II. Adjustable height and back rest type

- Adjustable height of the chair to minimum height of 400-450mm from floor to the top of seat
- Movable and detachable foot rest. Foot rests should be adjustable to squatting position.
- Removable and swing out type arm rests with bars
- A reclining seat along with reclining back which is useful in positioning of knees in 90degrees.
- Leg suspenders for lithotomic position
- Accessories like belts and chest straps etc.

7.12. Infusion Recliners

Infusion recliner chairs are used for many purposes like receiving chemotherapy, donating blood, day care recovery etc. Some treatments require the patient to stay in the chair for long period upto 12 hrs so the recliner need to be comfortable.

The accessible recliner should have following features:

- Adjustable height with minimum height of 400 to 450 mm for easy independent transfer from a wheelchair.
- A reclining back
- Swing away and removable arm rests
- Cushioned leg support
- A good quality comfortable seat cushion.

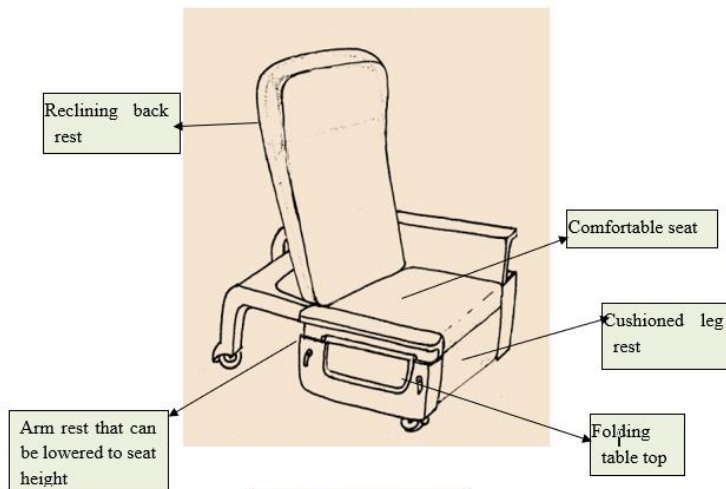
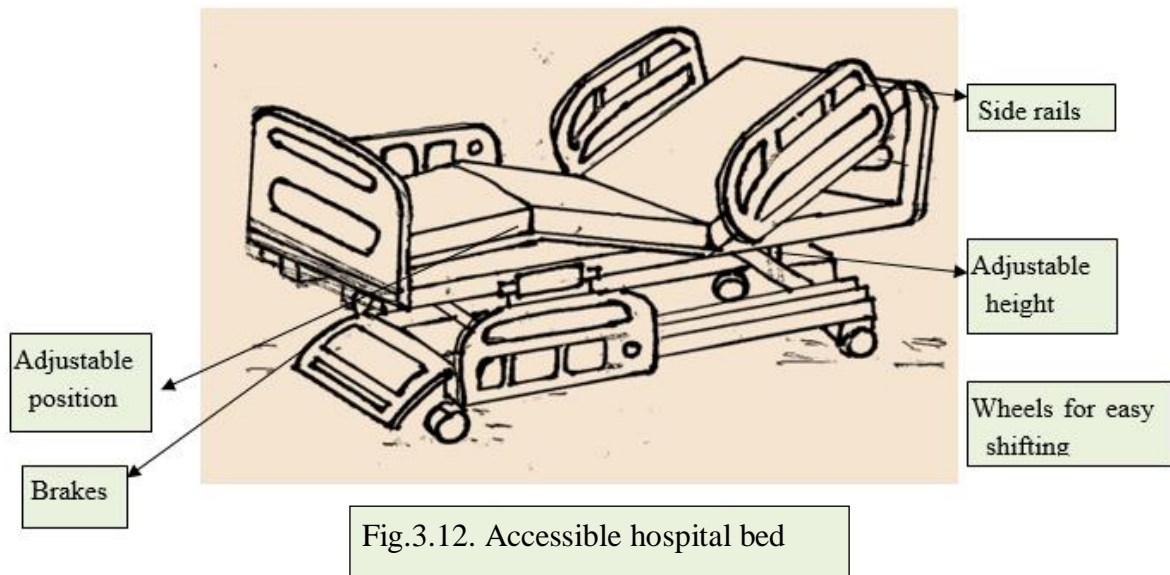


Fig.3.11 Infusion recliner

7.13. Hospital beds

An accessible hospital beds should have following features:

- Level of bed should be adjustable for easy transfer onto stretchers or wheelchairs etc.
- It should be easy to get in and out of bed.
- Adjustable bed height to bring down the bed up to the height of 400 to 450 mm between ground and the top of mattress for easy transfer from bed to wheelchair and vice-versa.
- It should have removable and folding side railings to prevent falls.
- There should be clear vertical space under the bed to accommodate legs of portable equipment like a patient lift.
- Mattress should be thick enough for pressure sore prevention.
- The beds should be motorized with remote operated bed height and position control.
- They should be operable by persons with limited or no range of reach, limited vision or fine motor ability



7.14. Gurneys or wheeled stretcher

They are used for transfer of patients in hospitals for diagnostic and treatment procedures such as ultrasound examination, ECG, catheterization etc. Some equipment like x ray equipment and DEXA scan equipment in radiology department do not have space under them for the portable floor lifts to be used and sometimes the metallic part of the lift is not compatible with the procedure so they can't be used.

In such cases stretchers or gurneys which are tables on wheels and have height adjustment provision, can be used for both bringing and transferring the patients, if required with sliding board. They should have the following features:

- Extra width, upto about 1000 mm
- Ability to bear weight of up to 250 kg.
- Provision to adjust height to the lower level upto 400 mm above the floor surface to bring its top to the level of the surface onto which the person with disability is to be transferred to or to a wheelchair seat.
- Sufficient length to make transfers easy.
- Safety straps and folding rails to prevent falls
- Lockable wheels to prevent sliding or moving during a transfer of a person with disability.

5.15. Infusion pumps

To administer needed nutrients or medications in the comfort, convenience, and privacy of one's own home the pumps used by disabled should have:

- Universally designed high contrast colour and raised lettering controls
- Switches in place of small closely set arrangement on the screen
- Provisions to set auditory, visual and tactile (e.g., vibration) alerts.
- Newer infusion pumps infusion rate can be controlled using computer or mobiles

5.16. Rehabilitation Equipment

- The accessible exercise machines and equipment like treadmills, multi-exercise stations, upper and lower body resistance stations, rowing machine, recumbent cycle, elliptical cycle, upright cycles, vibration training and upper body ergometer should have the following additional features:
- Large bright buttons
- Display on screens should be with large text size.
- Indicators should be audible and visible.
- There should be audible and visible warning signals.
- There should be contrast colour grips and levers and raised iconography on their consoles.
- The equipment should have a logo or picture on the treadmill belt in contrasting colours and good contrast between the belt and the metal surface to recognise that the belt is moving.
- The exercise equipment should have a swing seat with slow starting speed.
- The access to the equipment should be easy for wheelchair users.
- Feature of single hand seat adjustment is useful.

- Treadmill should be with emergency stop system.
- Recumbent cycle should be with a step through design and machines with paddles with fixed heel strap and adjustable toe strap.
- Elliptical cycle should be with good locking mechanism.
- Wherever possible, equipment with universal design features is always better.

8. Training Programmes

The goal of training is to provide better delivery of preventive, curative and rehabilitative medical care to persons with disability. After the training, by better understanding of various types of barriers in providing the services, the manpower involved will be able to help in improving delivery of medical care to persons with disability having sensory, motor, cognitive or communication disabilities. They can help the persons with disability in overcoming these barriers by good communication, developing rapport with the persons and assisting them in use of various services available. The training can be conducted in form of workshops in which active participation of the employees is useful. A feedback workshop for persons with disability visiting the healthcare facility will also be very useful.

During training, the staff needs to be told that the persons with disability of different types may require different ways and methods of communication. The expectations of medical staff and expectations of patients who are with disability, from each other, may be different as compared to other patients. Even behavioral expectations may differ. It is required to understand problems of persons with various types of disabilities and the ways they can be addressed. The staff is taught about various communication means that can be used. They need to understand how the directions are to be given to the patients. They should know the alternative means of communication that can be used while interacting with these persons. Learning about appropriate behavior for dealing with persons of different types of disabilities is important. It should be emphasized that the communication should be with the person with disability directly and not through the attendant, as far as possible. They should provide the person with disability who comes to the healthcare facility to get medical care all the information and education material, if required in auditory format, in Braille or in large print. No assumptions regarding their problems and abilities should be made. When the person has understanding problems, the person accompanying also need to be explained so that treatment is taken as advised. Any support required should be provided without harming dignity, privacy and autonomy of the person. Any expression showing pity or disrespect should be avoided. If anything is impairing accessibility, the issue should be addressed at the earliest. The staff should discuss with administration the problems they face in communicating with persons with disabilities so that the best solution of the problem can be found.

They should be told during the training programme about how the features added to various equipments make them accessible. The ways and means of communication including ICT means such as messaging, apps and calls, and care and precautions to be taken while interacting and communicating with persons with different types of disability are given below:

8.1. Interacting and communicating with persons with disability

Communication with persons with disabilities should be as effective as with others. It is more important in a health care facility, as a small mistake while communicating may lead to undesired or harmful change in management of his or her medical problem. While interacting with a person with disability, he or she also requires to be treated with respect, dignity, consideration and humbleness. They have right to equal opportunities and rights like a person without disability. While interacting with a person with disability

- Address a person with disability by his name, preferably 1st name.
- Do not pat the person on head or shoulder to show that you are caring.
- Do not insist if the person declines your offer of assistance.
- Communicate with the patient directly rather than speaking through attendant.
- Don't feel troubled if you are not clear what to provide to the person, let him/her seek the assistance.
- Keep in mind that the person may take longer to respond because of his/her disability so be considerate.
- Don't use common expressions that can't be related to the person in view of his disability.
- While using ICT for providing information or interacting with a person with disability relevant instructions should be followed.

8.1.1. Language to be used for persons with disability

While interacting with a person with disability the healthcare facility staff should know that

- Language of interaction should be “the person first language” which means that use person before disability so use “person with disability” and not “disabled person”.
- Use “person” first while addressing him using the condition he is suffering from. For example, use “person with cerebral palsy” and not “cerebral palsy person”.
- Use “a person who uses wheelchair” in place of wheelchair bound or confined person as wheelchair is an assistive technology to improve persons mobility.
- Ask “How long have you been using wheelchair” in place of “How long have you been in wheelchair”.

8.1.2. Interacting and communicating with persons with locomotor disabilities

While interacting with a person with locomotor disability the healthcare facility staff should know that

- Assumptions should not be made about capabilities of a person.

- Any type of assistance to the person to help in mobility should be provided only if the person asks for it.
- If an assistive aid of a person is to be moved from the place where it is kept, ask him before doing it.
- Talking to a person seated in a wheelchair, one should make himself comfortable sitting at the level of the patient if talks are to be for more than a few minutes long.
- While giving directions to a person with disability consideration should be given to distance, accessibility and weather conditions.
- Do not avoid shaking hand with a person with upper extremity prosthesis.

8.1.3. Interacting and communicating with persons with low vision or blindness

Infrastructure with adequate indoor as well as outdoor lighting, use of internationally accepted standards of displaying information for persons with low vision, unobstructed views of displayed information and provision to provide information by audible means are some of the ways to provide access to healthcare facility and services. While interacting with a person with low vision or blindness, the healthcare facility staff should know that

- When approaching a person with low vision or blindness the healthcare provider should identify himself or herself. If there is another person present, introduce him or her also.
- In contrast to person with locomotor disability a touch on shoulder or arm is appropriate when speaking to the person.
- Talk to the person face to face.
- Don't speak in a loud voice as the person can hear easily.
- Inform him when you are leaving.
- Be specific while offering directions and informing about obstacles.
- When offered to help, the person should be allowed to touch your arm, that will help in better guidance.
- Inform the person about the posted information or alert signals.
- Don't touch or play with an accompanying dog without owner's permission.

8.1.4. Interacting and communicating with persons with hearing problems like hard of hearing and deaf

Communication is very important in medical care. Wrong understanding can lead to wrong interpretation of history so wrong diagnosis. If the person is not able to understand the directions given by doctor, it may lead to improper or wrong treatment.

Persons with auditory disability usually communicate by speaking or by using auditory aids, oral interpreter, cued speech interpreter or Computer Assisted Real Time Transcription (CART) etc.

Providing written information is a useful way for exchange of small information. If longer interaction is required or the information exchanged is complicated or crucial, a qualified interpreter or a sign language interpreter should be provided. An interpreter is also required when a minor patient is accompanied by a person with hearing disability.

Interpretation if required, should be done by a qualified interpreter. Help of any other person like family members may be taken in an emergency situation. There are many situations while delivering healthcare where interpreter may be required for effective communication seeing the importance of the information. The interpreter should be able to effectively understand and convey the information to both the parties. The interpretation should be effective and impartial and should maintain privacy of the communication.

Sign language interpreters are effective only for people who use sign language. Other methods of communication such as the use of a transcriber may be necessary for those who lose hearing later in life and do not use sign language.

Hospital staff should be well versed with the hospital protocol of getting an interpreter at the earliest. Information boards or display screens should be placed near the place where the information is sought usually.

Teletypewriter (TTY, TTD or TDD) is used by some persons with hearing disability. The device helps in telephonic communication by converting spoken message into text which is displayed on a screen and vice-versa.

Visual alarms must be provided where audible alarms are provided.

Some of public phones must be compatible with TTY and hearing aid. They should have volume control.

All the communications aids should be made available without any charge.

Following points need to be emphasized during training of the healthcare facility staff for communicating and dealing with persons with hearing disability

- Ask the person how to communicate with him or her.
- Give enough time to the sign language interpreter particularly when some technical words are used.
- To get the person's attention when you want to speak to him a light waving of hand or touch on arm is useful.
- Speak clearly in an expressive manner and with a normal tone.

- Allow the person to read your lips while you speak to the person. Face the person when speaking to him.
- While writing, don't speak to the person as the person can't read your lips when looking at the written information.
- Minimizing disturbing background noise is very useful when talking to him or her.
- Try to get feedback to assess clear understanding.
- Don't hesitate to ask the person to repeat or write down, if what he spoke is not understood.

8.1.5. Interacting and communicating with persons with speech and language problems/difficulties

While interacting with a person with disability the healthcare facility staff should know the following.

- Be polite and friendly and start talking to the person as is done with anyone else.
- Give him time to speak and convey what he wants to, without speaking for him.
- Don't lose attention and ask the person to repeat.
- For better communication repeat what you have understood
- Don't hesitate to ask the person to repeat or write down, if what he spoke is not understood.
- Use any available communication device that the person prefers to make the communication better.
- Speak in normal tone if the person has no hearing problem.
- Ask short and clear questions without insulting him or her by over-simplification of the communication.
- Communication manners with the person should not be discouraging.

8.1.6. Interacting and communicating with persons with intellectual disability

Before providing accessible services, the healthcare providing staff should know the following points

- Be alert and if required change your method of communication to gestures, writing on a paper, diagrams, demonstrations etc. for better communication.
- Use simple language with words relating to the things that are seen around.
- Provide the information clearly and precisely and check if the person has understood.
- Repeat the information if the person has not understood.
- Don't hesitate in giving the information again but in a different way.

- Persons with intellectual disability, to please the staff, may show that he or she thinks that the informing staff is good. So, confirm the response by asking in a different way.
- Don't pretend to have understood the information given by the person.
- Instruction given should be clear and specific. Too many instructions may confuse the person.
- Be patient and don't get irritated by patient's response. Your perception may be wrong.
- If the person is expected to have memory deficit, they may not remember and ask for the information again.
- Adjust your method of communication and if required change to communicate better if the person has auditory or visual perception problem.
- Keep the background noise to minimum.
- There may be difference in the type of response you are able to elicit with the same type of question if asked to two different persons.
- Be clear about the literacy status of the person.

8.1.7. Interacting and communicating with persons with psychiatric disabilities

- Make eye contact with the person and speak directly to him.
- Keep the communication simple and clear.
- Be patient and listen to the person carefully. Never pretend to have understood.
- Behave with the person as you would do with any other person.
- Be careful in your mannerism, the person's interpretation may be different
- Your body language should not indicate that you are uncomfortable with the person.
- Provide the information clearly and precisely and check if the person has understood.
- Repeat the information if the person has not understood.
- Don't hesitate in giving the information again but in a different way.
- Don't make assumptions about the person's preferences or response. Treat the person as an adult. Do not make decisions for him or her.
- Do not give an advice or assistance which is not solicited.
- If the person appears to be experiencing a mental health crisis, do not panic and run for help. Try to find how you can help.
- Do not be influenced by the information you received from movies and social media regarding dealing with persons with psychiatric disabilities.

9.0. Accessible communication

According to the UNCRPD document, article 9, people with disabilities have a right to receive accessible information. For that, they require support in getting the required information. The information should be provided in a manner that it is easy to understand so that they are able to make their choices and decisions.

An accessible information may be provided through websites, publications, social media etc. or through direct meetings. While planning the communication, needs of all the groups of the society are to be considered.

- The information being provided to persons with disabilities is required to be easy to understand.
- If there is difficulty in understanding, information in an alternative form should be provided.
- Pictures explaining the information in text are useful.
- The language used should be easy to understand, concise, in short paragraphs and maximally legible.
- For maximum legibility use appropriate font size and type like Arial or Tahoma fonts.
- Be careful with colours, provide adequate contrast between the essential information and its surroundings.
- The spacing between words, line and paragraphs should make the information easily accessible.
- It is better not to use decorative text, text in Italics and texts in fonts less than size 14.
- Lower case letters are easier to read so avoid writing words in all capital letters. Avoid using tables and graphs.
- Never use a background that makes it difficult to read the text.
- Provide audio file wherever possible.
- Allow flexibility by letting the users choose their way of accomplishing a task.

10. Use of Information and Communication technology

Providing online information, appointment, registration and payment facility using debit cards, credit cards or payment apps

10.1. Website accessibility

For website accessibility, follow the “Guidelines for Indian Govt. Websites (version 2.0)” prepared by National Informatics Centre (NIC), Ministry of Electronics & Information technology (MeitY), Govt. of India which are available as an integral part of central secretariat manual of Office procedures.

Compliance to these guidelines will make the websites accessible to persons with various disabilities like low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities and combinations of these which may otherwise hinder access to the web. Compliance with these guidelines ensures that any disabled person using an assistive technology can easily navigate the website. Compliance matrix lists all the accessibility guidelines in a separate section along with the reference numbers.

An accessibility statement should be made conveying the contact information to get the alternate accessible format, support of aid. Provide the publication in HTML format and if possible in PDF format also. Provide translated version in other commonly used languages.

10.2. BIS standard for Accessibility for ICT Products and services

Considering that digital means of accessing information, registration and payment etc. have become prevalent, these methods must be accessible by compliance of relevant websites, apps, digital documents and software with the recently published BIS standard IS 17802 on “Accessibility for ICT products and services-Requirements”. This standard updates the accessibility requirements for Web and mobile apps, referred to in GIGW 2.0. Besides these, the standard covers editable and PDF documents, online applications, software for laptop, desktop, smart phone and other devices, broadcasting, two way communications, support documentation and emergency and relay services (including help desk). Those who have implemented the latter, can migrate to the standard (in specified timeframe). Those who are implementing afresh websites, mobile apps and online systems, which contain the registration module, payment module etc. can ensure that they are compliant to above specified IS 17802 right from the beginning in respect of all their ICT products and services. Of particular relevance for early implementation are: all

apps used by citizens/ patients/ care-givers for registration and payment, for consent forms, e-prescription, e-pharmacy, and telemedicine (e-Sanjeevani) etc. As such, all the components of healthcare – preventive, curative and palliative, where ICT interventions are to be used or can be used productively, will benefit by following this standard both in the purchase and use of ICT as it addresses all the disabilities. Another point to note is that the above standard provides support to all Indian languages. As such, local language provision should also be there in all ICT, besides English and Hindi.

- All the required apps like Co-Win, Arogya Setu etc. should to be made accessible without any delay.

11. Suggested dimensions of space and specifications for use of accessible equipment and furniture

S.No.	Equipment/ Aid/appliance / Activity	Dimensions / Specifications
1	Wheelchair	<p>Length of wheelchair – 1100 mm to 1300 mm</p> <p>Width of a wheelchair – 600mm to 750 mm</p> <p>Circular turning space diameter – 1500mm</p> <p>Comfortable leg space height under the table – 700 mm</p>
2.	Transfer surface	<p>Height</p> <p>Low transfer – 400 to 500mm</p> <p>High transfer – 650 mm</p> <p>End transfer surface 400mm X 700 mm</p> <p>Side transfer surface 700mm X 700mm</p>
3.	Equipment Used by patient in seated position	<p>Wheelchair space:</p> <p>i). Width on floor - 920 mm minimum</p> <p>Raised platform</p> <p>ii). Width of raised platform – 820 mm minimum</p> <p>iii.) Depth of platform with wheelchair front entry with same exit – 1220 mm</p> <p>Platform with opposite exit- 1020mm</p> <p>Depth of platform for side entry – 1520 mm</p> <p>Depth under an equipment – 620-720 mm</p> <p>Toe clearance space –</p> <p>Height for toe clearance – 230mm</p> <p>Depth for toe clearance – 150mm</p> <p>Depth for knee clearance – 490mm</p>

		<p>Height for knee clearance – 560mm Depth for knee clearance – 680 mm</p> <p>Surface edge at entry – If more than 7 mm upto 15 mm high, should be beveled with a slope of 1:2 If surface more than 15 mm high ramp should be provided with protection edge of 50mm</p> <p>Mammography Breast platform adjustability – 670 to 1070 above the floor.</p> <p>Portable floor Lift Compatibility for the legs of the portable lift to saddle the base of the equipment: Clearance in base of the equipment: 990mm wide X 150 mm high from floor X 920 mm deep from edge of the table for 650 mm maximum wide base</p>
4.	Equipment used by patient in standing position	<p>Surface – Slip resistant</p> <p>Transfer supports For End transfer -340 mm long, 80% of the platform surface</p> <p>For Side transfer -700 mm long, may be modified depending on width of transfer surface.</p> <p>Length of horizontal standing support grip – 100mm minimum at height of 870-970 mm from floor</p> <p>Height of vertical standing support grip – 450mm at a height of 870 mm to 950mm from floor surface</p>
5.	Transfer to an Imaging equipment	<p>Transfer support requirement – If transfer surface depth less than 600mm</p> <p>Position support requirement – If transfer surface more than 600 mm deep</p>

