1. **HOSPITAL EQUIPMENT AND COMFORT DEVICES**

**Introduction**

* Usage of disposable and high-tech items in healthcare for various diagnostic and therapeutic procedures are becoming common today
* These items are generally classified by their use, different makes and materials used like; synthetic rubber, glass, stainless steel, etc.
* Quality of care, as such, largely depends on the caregiver’s ability to use these items efficiently depending on the experience and knowledge
* The correct method of usage of these items requires knowledge for the safety of the patients, as well
* A caregiver must apply his/her knowledge for safe use of these equipment and supplies with necessary due care for an individual patient

**Types of Equipment used**

**Classification based on material used:**

* **Rubber Items** - Mackintosh, Gloves, Rubber tubes, Hot water bag, Mouthpiece, Ambu bag, etc.
* **Glass Items -** Ounce glass, Syringes, Test tubes, Jars, Thermometer, etc.
* **Enamel items -** Trays, Kidney trays, Basins, Bowls, Jars, Enema can, Bed pan, Urinals, etc.
* **Stainless Steel items -** Various Forceps, Different needles, Scopes, Sharp instruments like surgical blades, Scissors,
* **Fibre-Optics** **-** Lenses in Camera and in various diagnostic equipment

**CARE AND MAINTENANCE OF EQUIPMENT**

**Purpose of care and maintenance of equipment used:**

* To prevent spread of infection
* To clean the articles & prepare for reuse.
* To remove stains
* To preserve life of articles

**General principles of care and maintenance of articles:**

* Wash all the articles thoroughly with soap and water, rinse them well, decontaminate and replace at the appropriate place
* Do not use hot water to clean rubber articles as they get destroyed with heat
* Always dry rubber goods them in shade as heat will destroy them
* All fibre-optic scopes are expensive items and require careful handling
* They are used in diagnostic labs
* They are flexible and get damaged by heat
  + Detach camera from the scope
  + Remove obturator from the scope using a gauze pad soaked in 2% Glutaraldehyde to disinfect
  + Hang the scope and obturator before replacing in the cupboard or container
  + Replace the lens cover of the camera and put it in its container to avoid damage

1. **COMFORT DEVICES**

***Comfort***is the absence of irritating stimuli that distracts one's attention from the task at hand.

***Comfort devices*** are the mechanical devices designed to provide optimal comfort to an individual.

|  |  |
| --- | --- |
| **Some Comfort Devices** | |
| 1. Pillows | 1. Side rails |
| 1. Back rest | 1. Wedge/Abductor pillow |
| 1. Bed cradle | 1. Knee rest |
| 1. Cardiac table | 1. Bed blocks |
| 1. Mattress | 1. Air cushion |
| 1. Trapeze bar | 1. Rubber & cotton rings |
| 1. Footboard | 1. Hand rolls |
| 1. Trochanter Rolls | 1. Sandbags |

**Pillows**

**Purpose:**

* Used for support to maintain correct body alignment
* Used under head, arms, legs and along spine or abdomen to provide comfort
* Support patient’s back at an angle, to maintain in a sitting position
* Could be adjusted to desired angle, may be with extra pillows
* Arms of patient are well supported
* Used for patients suffering with cardiac and pulmonary distress
* **Back Rest**

**Purpose:**

* To relieve dyspnea
* To promote drainage from abdominal cavity
* To provide a comfortable position

**Bed Cradle**

*It is a frame a semicircular or rectangular frame of metal or made of wood or bamboo used to hold the bed linen from touching a particular part of body.*

**Purpose:**

* To prevent pressure from the weight of linen
* To allow air to circulate around lower limbs

**Cardiac Table**

**Purpose:**

* Bed table placed in front with a pillow on it, patient can lean forward and take rest
* Table without pillow is used for writing or for having meals
* Used for patients with cardiac conditions and asthma
* Position should be changed to relieve fatigue
* Patient can rest over the table with the help of pillow
* Easy to have meals
* Can be used for writing or reading

**Mattress**

Mainly two types:

1. Air mattress 2. Water mattress

**Purpose:**

To provide comfort

Used for very thin or very obese patients, and those who are prone to pressure sores

**Trapeze Bar**

It is a bar suspended from the

overhead frame to head of the bed.

**Purpose:**

Patient can grasp the bar to raise the trunk off the bed surface or to move up in the bed

**Footboard**

Device that is placed towards the foot of pts bed to serve as support for his feet

Usually made up of wood/plastic/heavy canvas

**Purpose:**

To support patient’s feet

To prevent foot drop

**Sandbags**

They are sand filled plastic bags that can be shaped to body contours

Can be used in place of or in addition to trochanter rolls

**Purpose:**

Provide support and shape to body

Immobilize extremities and maintain specific body alignment

**Trochanter Rolls**

A cotton bath blanket/sheet is folded lengthwise to width extending from greater trochanter of femur to lower border of popliteal space

**Purpose:**

Prevent external rotation of legs when patient is in supine position

**Side Rails**

Side rails are the bars positioned along the sides of the length of the bed

**Purpose:**

Ensure patient’s safety, and are useful for increasing mobility

Provide assistance in rolling from side to side or sitting up in bed

**Wedge /Abductor Pillow**

It is a triangular shaped pillow made of heavy foam

**Purpose:**

Used to maintain legs in abduction following Total Hip Replacement Surgery

**Knee Rest**

This is a device placed under the knees to provide comfort

**Purpose:**

Gives relaxation and thus relieves pain on tendons beneath the knees

**Bed Blocks**

Made up of wood or metal

**Purpose:**

Used to raise the foot end or head end of the bed

**Air Cushion**

Air cushions are made up of rubber, and it can be inflated with air

**Purpose:**

Used to take off the weight of the body and to relieve pressure on certain parts of the body

**Hand Rolls**

Made by folding a washcloth in half, rolling in lengthwise and securing roll with tape, and is placed against palmar surface of hand

**Purpose:**

Maintain thumb in slightly adducted and in opposition to fingers

Maintain fingers in slightly flexed position

**Rubber and Cotton Rings**

These are circular rings made of rubber or cotton

**Purpose:**

These are used to relieve pressure on certain parts of the body like elbow and heels