

# Classifying medical equipment based on its purpose

---

- Monitoring
- Diagnosis
- Treatment
- Rehabilitation



**13.2.2 Classifying medical equipment based on its purpose.**  
**Unit B 13.2 Medical Equipment Uses and Categories**  
**Module 279 18 B Medical Instrumentation I**

# Patient Care Cycle

---

Headache

Start jogging  
every day

Diagnosis:  
Drinks too  
much  
alcohol

Therapy: Stop drinking alcohol (pills, punishment, threats...)

# The Purpose of Medical Equipment

---

## Monitoring

To measure a number of signals from the body on an ongoing basis, in order to check for abnormalities.

in car: cooling water temperature, fuel gauge, battery voltage, tire profile ....

## Diagnosis

To analyse in detail the cause of the patient complaints from measurements and 'patient history'. Diagnosis is led by a suspicion on what is the disease.

In car: measure level of oil or cooling water, check spark plugs, ....

## Treatment

To take measures to (attempt to) improve the situation and condition of the patient with respect to his/her complaints.

In car: add oil, cooling water, ....

## Rehabilitation

To restore the good health of the patient after the cause of the complaints have been removed, e.g. after surgery >> physiotherapy, stop the drinking, ...

# Monitoring (in groups of 2)

---

List as many as possible daily activities during which you **monitor** your own and/or your friends health.

# Monitoring (in groups of 2)

---

List as many as possible daily activities during which you  
**monitor**  
your own and/or your friends health.

(sense of) hunger & thirst  
feeling good  
pain locations and levels  
look in the mirror  
feeling high heart rate  
sensing tiredness / energy level  
use of weighing scales

how are you ?  
you look tired today....

# Please classify



Scales



Injector



Oto/Ophthalmoscope



Nebulizer



Stethoscope



Pulse Oximeter



Blood Pressure Machine

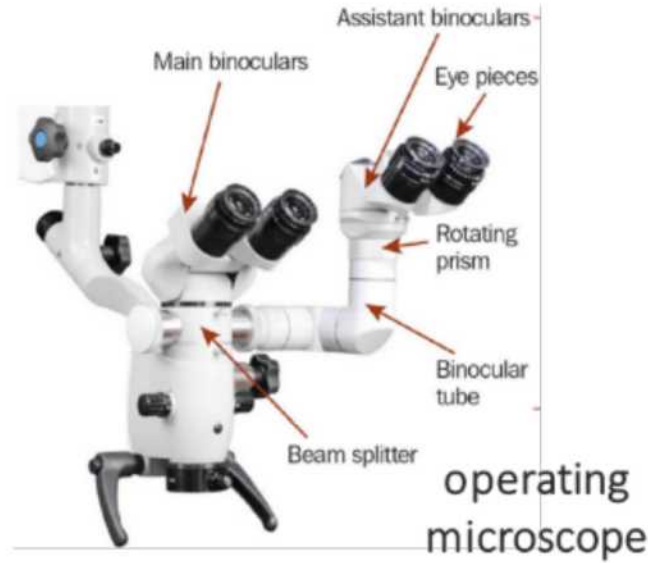
# Please classify



Suction Machine



Drills



ventilator

# Monitoring

---



Scales



Pulse Oximeter



Physiological  
Monitor

holter ECG  
Pacemaker with defibrillator  
foetal tokograph  
thermometer

# Diagnosis



Stethoscope



Blood Pressure Machine



CT system



Oto/Ophthalmoscope



ECG Recorder



Ultrasound system

# Treatment



Injector



Pacemaker



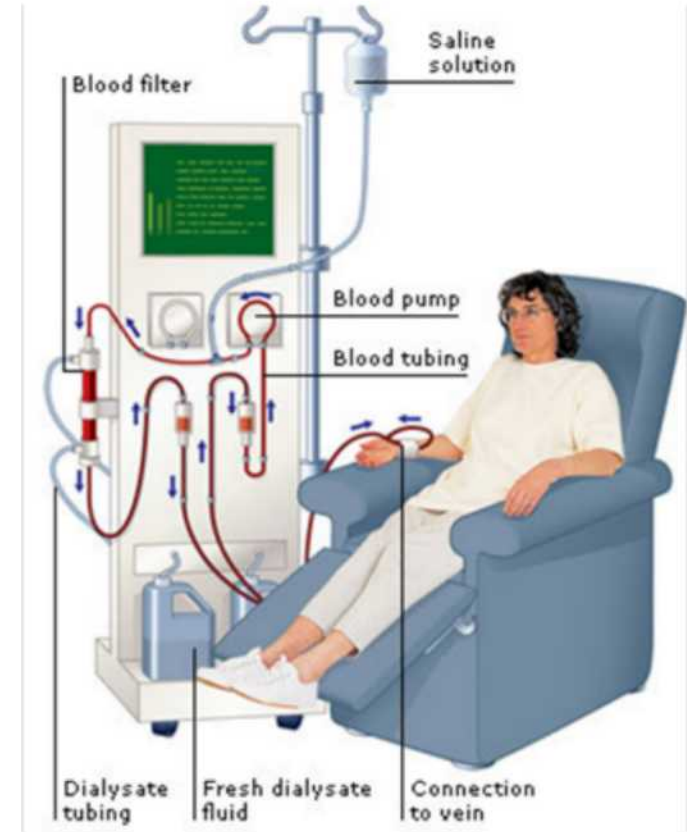
Drills



Nebulizer



Infant Incubator

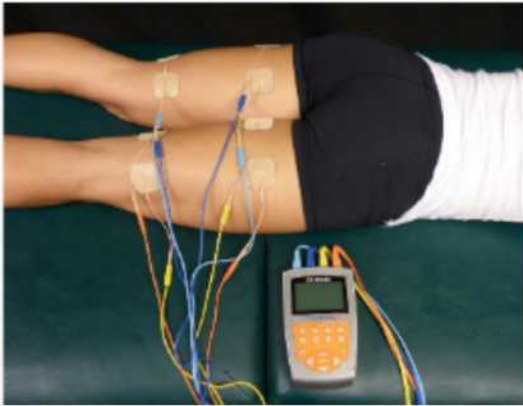


Haemodialysis machine

# Rehabilitation

---

Electro-muscular stimulator



short-wave diathermy machine



- **massage**
- **exercises**
- **walking**
- **vitamins / pharmaceuticals**

# Classification Issues

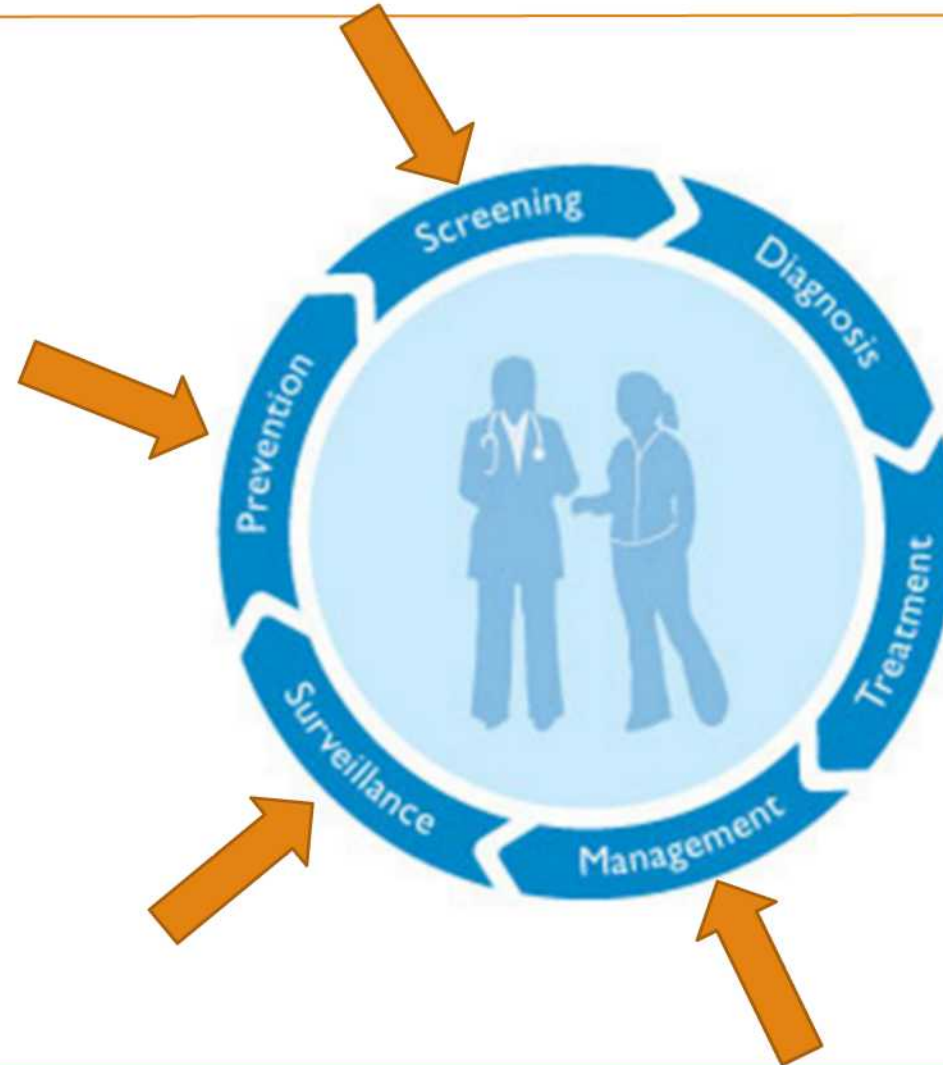
---



Pulse Oximeter

used during monitoring (under anaesthesia) and diagnosis

# Integration between Hospital and Home healthcare



**preventive  
maintenance for  
humans**

# Integration between Hospital and Home healthcare

---



managing

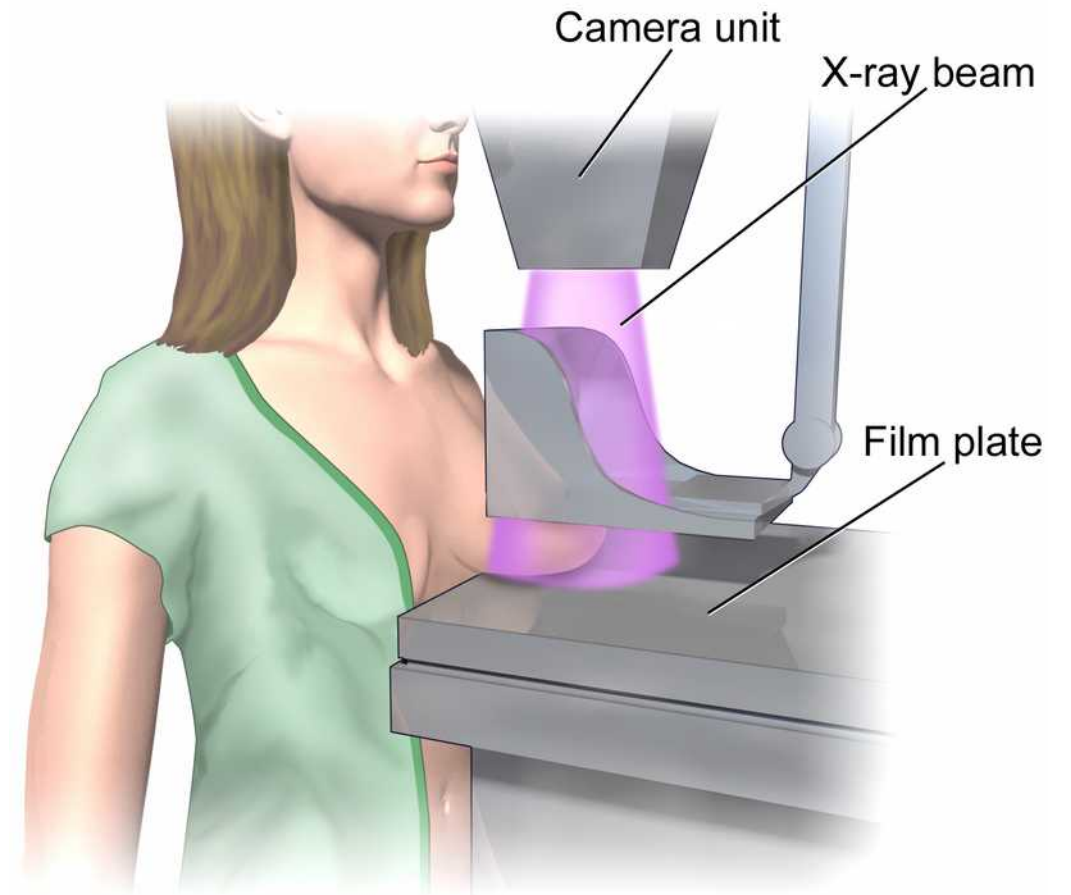


Your Diabetic Supplies May Be Covered by Your Health Insurance

**Control your diabetes ..  
For Life.**

An advertisement for diabetes management. It features a woman's face on the left, eating strawberries. To her right are a blue glucometer, a white blood pressure cuff, and a black wallet containing cash. A yellow arrow points to the right with the text "... more info".

# (Breast) Screening: mammography



Mammogram

# Integration between Hospital and Home healthcare

---



monitoring blood pressure  
for prevention



body temperature  
for diagnosis



body weight  
for prevention

---

# END

The creation of this presentation was supported by a grant from THET:

see <https://www.thet.org/>

