

# **Infant incubator**

## **Definition :**

Infant incubator is a Bio Medical Device which provides Warmth, Humidity and Oxygen all in a controlled environment as required by the New born.

## **Indications:**

Premature baby or full term baby with critical illness .

## **Advantages :**

- It provides the closest environment to that of the mother's uterus .
- Temperature at a uniform airflow and the Humidity can be controlled to the desired level .
- It protects the baby from all the disturbances and infection in the NICU.

## **Disadvantages:**

- The disadvantage is that since the baby lies in a closed hood it is difficult to access the baby for medical procedure or care.

## **Cleaning the Incubator:**

Some manufacturers suggest cleaning the incubator every day with a mild soap water solution, some don't. But at least the incubator has to be cleaned and disinfected thoroughly.

- after each change of infant
- at least once a week.

## **Incubator Preparation :**

- ✧ Check the Incubator exterior especially the plexi glass for any signs of damage.
- ✧ Check the braking system in the wheels work properly.
- ✧ Check that the access ports can be opened and closed properly and limit opening of large door as this interferes with air temperature.
- ✧ Switch on the machine.
- ✧ Check whether the Manual and Servo mode can be selected.
- ✧ Check the switch for Selection of Temperature unit (Centigrade or Farenheit)
- ✧ Check whether the set Temperature can be raised and lowered.
- ✧ Check whether the set Humidity can be raised and lowered. (Is utilized for incubator care of preterm babies only – NOT required for babies >32weeks)

- \* In Servo mode remove the Skin Temperature probe and check whether the Probe Fail alarm sounds.
- \* With the machine switched on disconnect the main power supply and check whether the Power Failure Alarm sounds.
- \* If ambient temperature is higher than the set value then Incubator will be ineffective.
- \* When oxygen is administered always check the level using an independent oxygen monitor Safety .
- \* Pre-warmed to a temperature appropriate to the infant's age, size and condition. Default incubator temperature in NICU is 35 degrees
- \* Adjust the incubator temperature by no more or less than 0.5 of a degree at a time.
- \* Re-check the temperature within half an hour of making any adjustment.
- \* Monitoring
- \* Check and record the incubator temperature hourly.
- \* Maintain axilla temperature between 36.5°C and 37.2°C
- \* Do not place the Infant Incubator in direct sunlight or other source of light as it might overheat the infant.
- \* Do not leave any patient inside the Incubator unattended for a long time.
- \* Ensure baby is nursed naked apart from a nappy.
- \* Explain to parents/caregivers the purpose of an incubator for their baby
- \* Maintain a quiet environment
- \* There is no tapping on the canopy.
- \* No equipment is placed on top of the canopy.

[http://www.srmuniv.ac.in/sites/default/files/downloads/unit\\_1\\_incubator\\_radiant\\_warmer\\_phototherapy\\_unit.pdf](http://www.srmuniv.ac.in/sites/default/files/downloads/unit_1_incubator_radiant_warmer_phototherapy_unit.pdf)

<http://www.adhb.govt.nz/newborn/Guidelines/Admission/BabyInIncubator.htm>

[http://www.who.int/medical\\_devices/innovation/incubator\\_infant.pdf](http://www.who.int/medical_devices/innovation/incubator_infant.pdf)