



Infection Control in Hospitals

1. Modes of infection transmission
2. Air bourne infection control
3. Controlling the waste stream – outside the square

Modes of Infection Transmission

- Direct contact – bacteria or viruses are transmitted through direct contact between infected person (host) and susceptible person.
- Indirect contact – Bacteria or viruses are transmitted from contaminated surfaces such as door knobs, computer keyboards, mobile phones, tables etc
- Droplet transmission – large droplets are generated through coughing or sneezing. They fall out of the air relatively quickly
- Airborne transmission – small droplet nuclei or dust particle suspend in the air for long periods of time – chicken pox, tuberculosis, measles, aspergillus, legionellus

Airborne infection control

AS1668.2 – 2002 section 5 and HB260 requires ventilation for infection control for:-

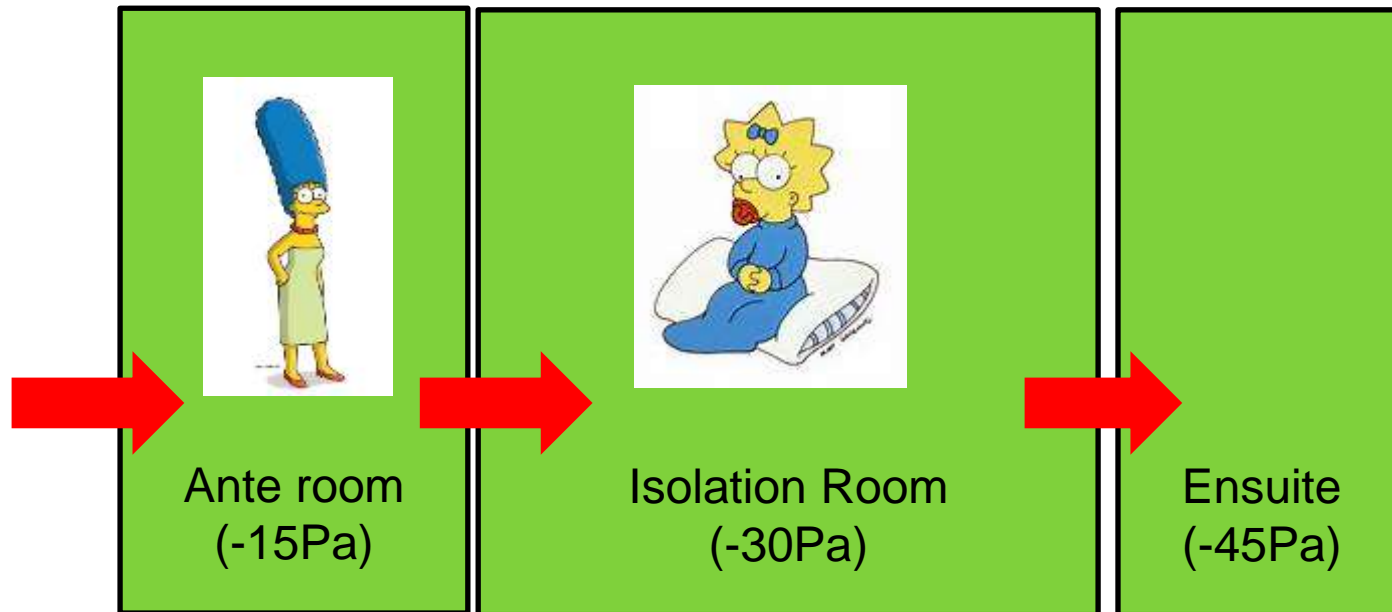
- Infectious isolation rooms
- Protective isolation rooms
- Operating theatres
- Sterile Stores
- Mortuary
- Recovery
- Dirty Utility Rooms

Airborne infection control

- Air change rates
- Exhaust rates
- Minimum outside air requirements
- Filtration
- Room pressurisation
- Direction of airflow from clean to dirty

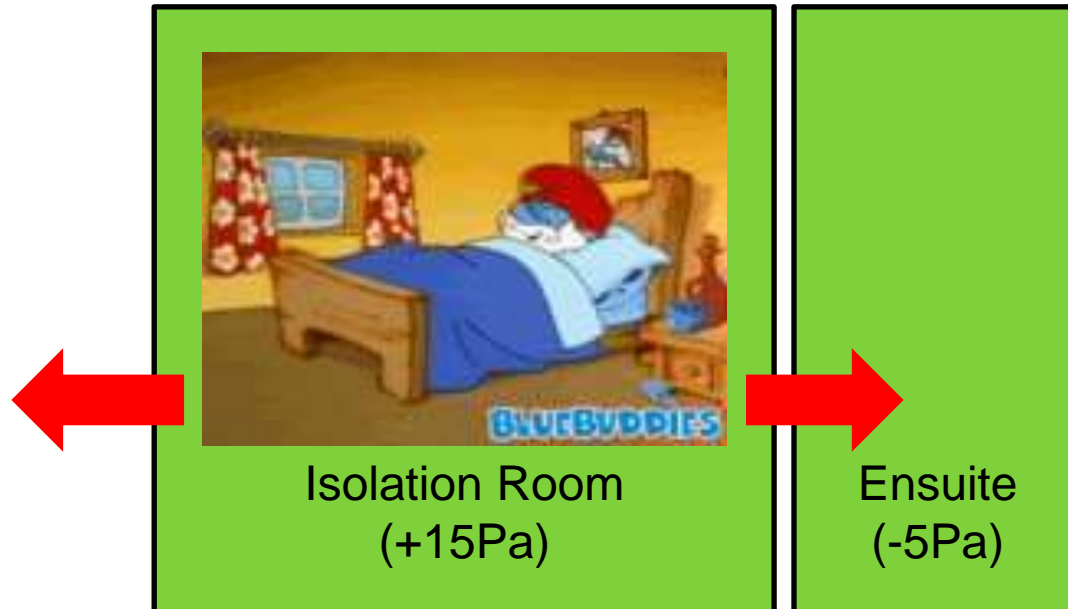
Airbourne infection control

- Infectious Isolation room (-ve pressure)



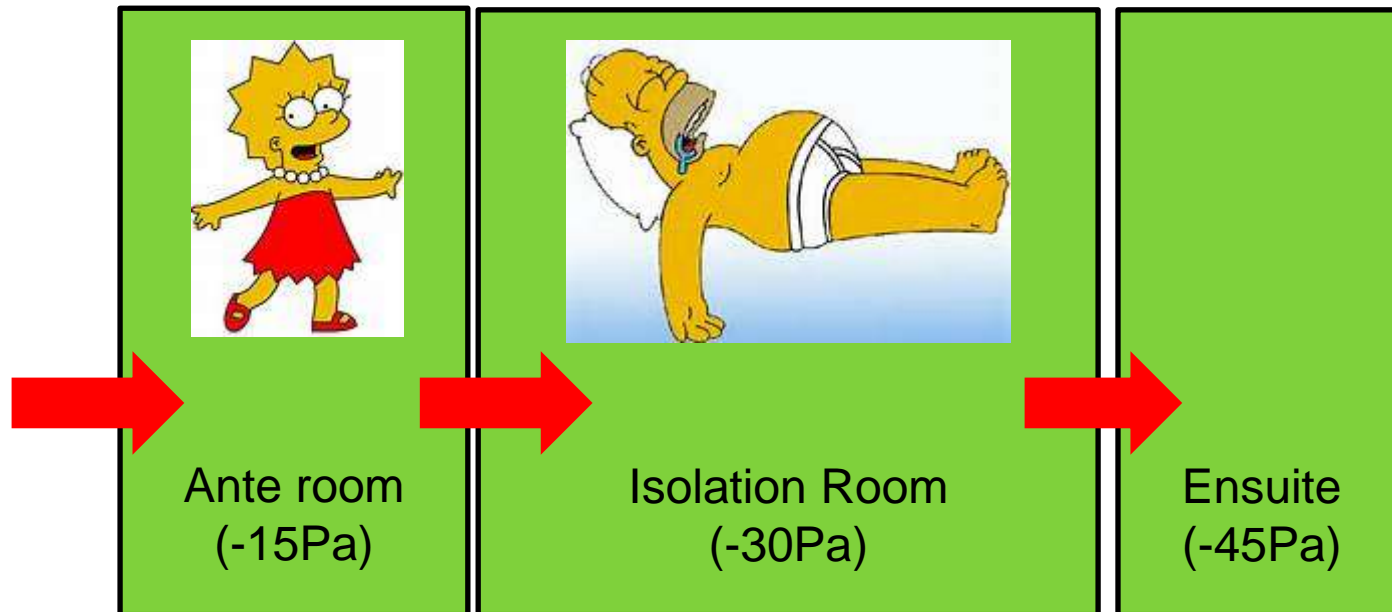
Airborne infection control

- Protective Isolation room (+ve pressure)



Airborne infection control

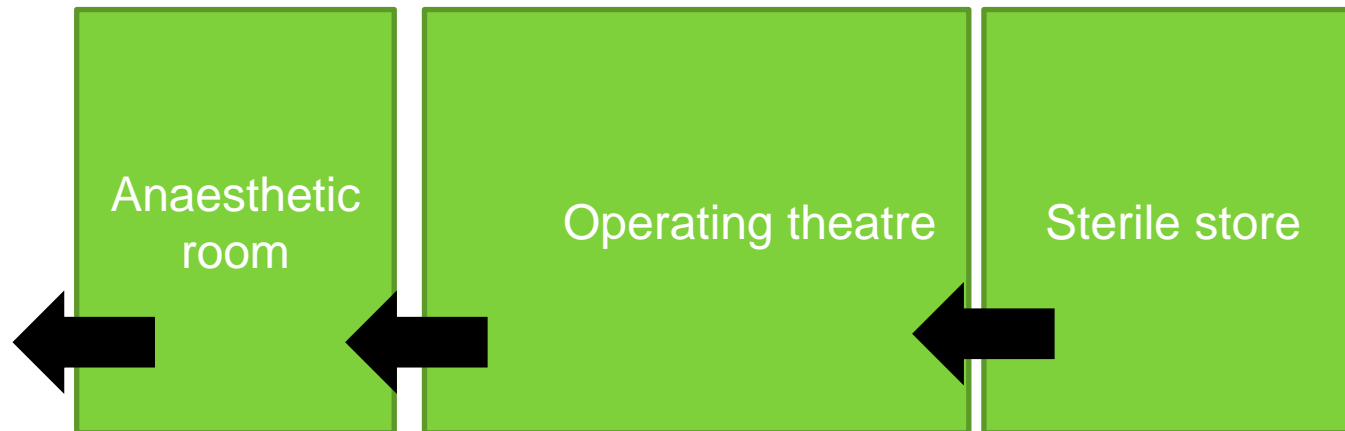
- Quarantine room (-ve pressure)

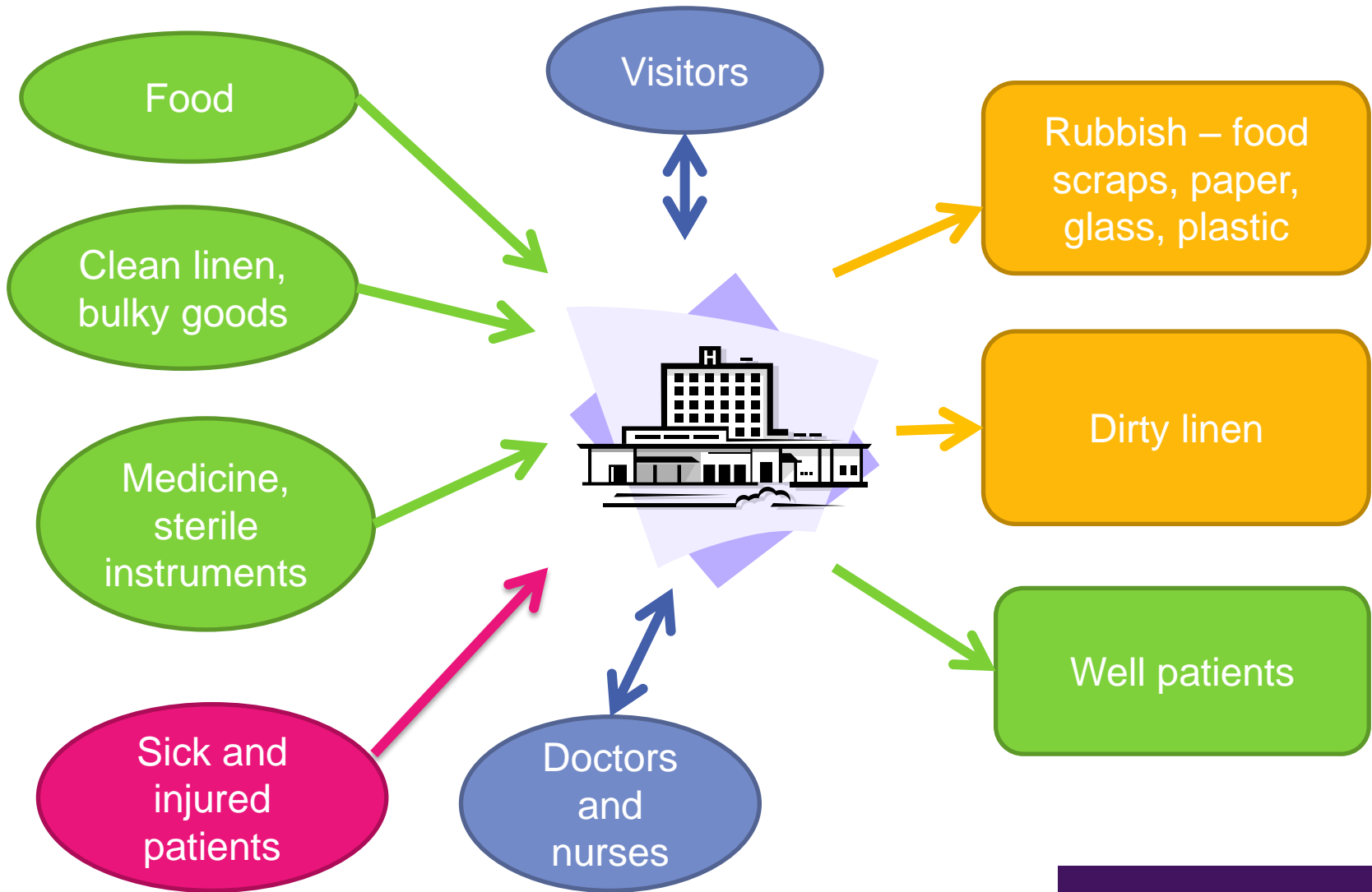


Anteroom doors to be interlocked. Anteroom to be big enough for a bed.

Airborne infection control

- Operating theatres





Automated Transportation Systems

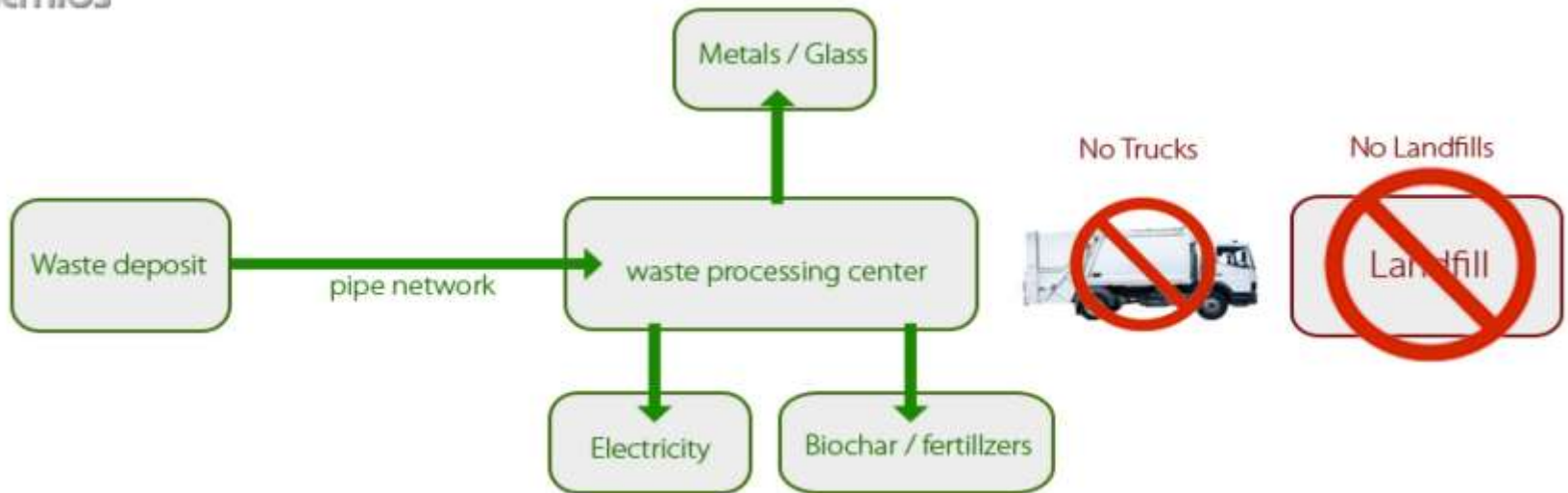
- Pneumatic Tube – medicine, sterile instruments, blood, pathology samples
- Automated Guided Vehicles – Meals, Bulky goods, Clean Linen, (Dirty Linen, Rubbish)
- Automated Vacuum Waste System – Dirty Linen, all rubbish

Automated Guided Vehicle



Automated Vacuum Waste System

METHODS



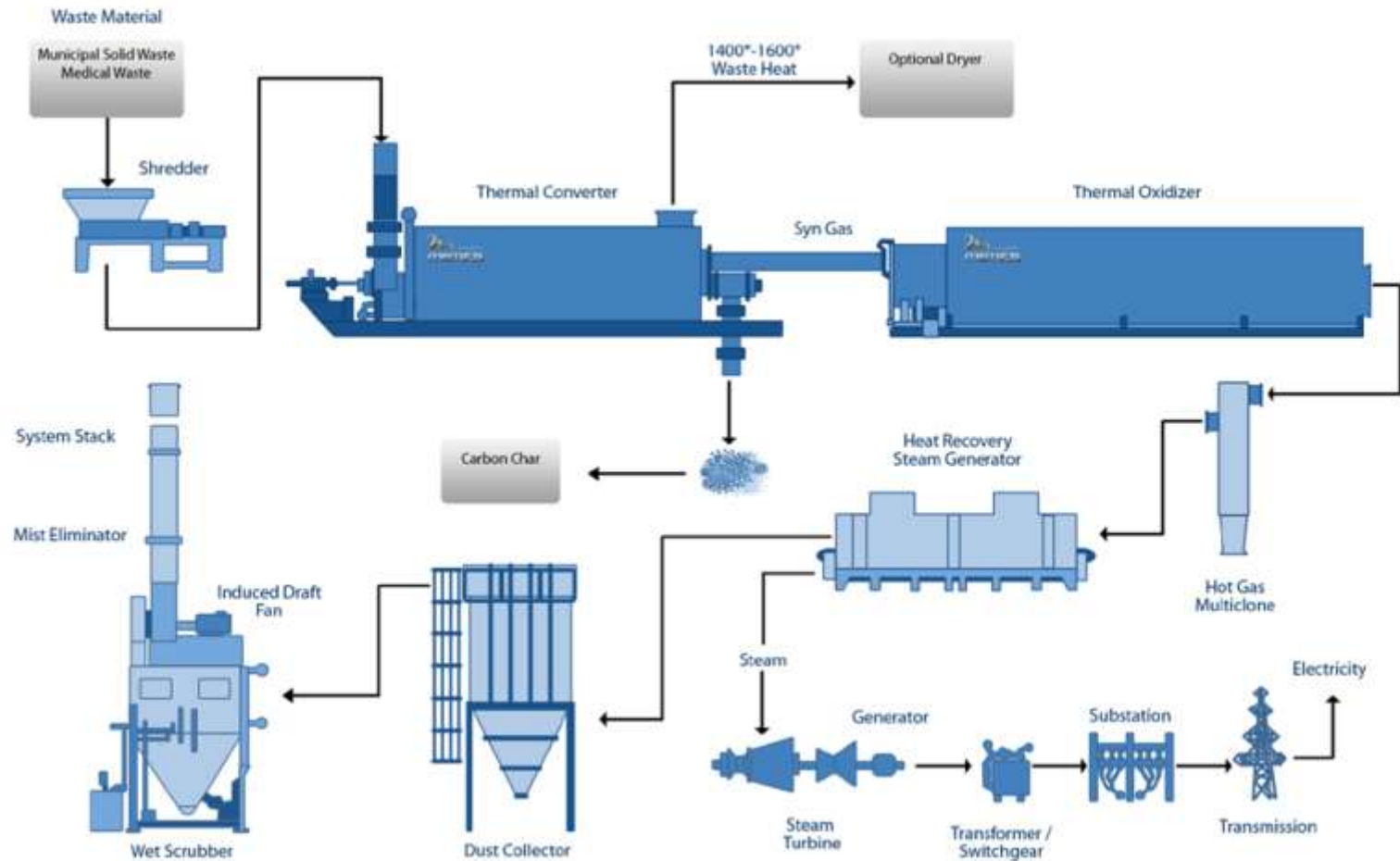
Automated Vacuum Waste System



St Olav's Hospital,
Trondheim, Norway



Convert waste stream to carbon char and electricity



www.globalskm.com

