# WHAT ARE THE TREATMENT OPTIONS FOR CANCER?

The treatment plan depends mainly on type of cancer, stage of cancer, patient's age and patient's general health. Some cancers respond best to a single type of treatment. Others may respond best to a combination of treatments. The different types of treatment of cancer is as follows

### **SURGERY**

- Oldest form of cancer treatment
- Goal can be either the removal of only the tumor or the entire organ
- Surgery offers the greatest chance for cure, especially if the cancer has not spread to other parts of the body



# **RADIATION THERAPY**

- Use of ionizing radiation to kill cancer cells and shrink tumors
- Effects are localised and confined to the region being treated
- Radiation therapy injures or destroys cells by damaging their genetic material, making it impossible for these cells to continue to grow and divide
- Radiation therapy side effects
  - ✓ Difficulty in swallowing due esophagitis
  - ✓ Pneumonitis
  - ✓ Fatigue
  - ✓ Skin irritation



### **CHEMOTHERAPY**

- Chemotherapy is the treatment of cancer with drugs that can destroy cancer cells
- Chemotherapy target all rapidly dividing cells and are not specific to cancer cells
- Chemotherapy works by interfering with the ability of rapidly growing cells (like cancer cells) to divide or reproduce themselves.
- Effects of chemotherapy on these and other normal tissues gives rise to side effects during treatment
- Chemotherapy side effects
  - ✓ Temporary drop in blood count
  - ✓ Infection
  - ✓ Temporary hair loss
  - ✓ Numbness in the fingers and toes (Neuropathy)
  - ✓ Nausea and vomiting
  - ✓ Skin rash

# **HORMONE THERAPY**

- It is the treatment that adds, blocks, or removes hormone
- To slow or stop the growth of certain cancers (such as prostate and breast cancer), synthetic hormones or other drugs may be given to block the body's natural hormones
- Sometimes surgery is needed to remove the gland that makes a certain hormone

### **BIOLOGICAL THERAPY**

- Also called as immunotherapy/biological response modifier therapy
- Biological therapy helps immune system fight cancer.
- Agents used in biological therapy include
  - Monoclonal antibodies
  - Growth factors
  - Vaccines



## STEM CELL TRANSPLANTATION

- A method of replacing immature blood-forming cells in the bone marrow that have been destroyed by drugs, radiation, or disease
- Stem cells are injected into the patient that produce healthy blood cells
- A stem cell transplant may be autologous (using a patient's own stem cells that were saved before treatment), allogeneic (using stem cells donated by someone who is not an identical twin), or syngeneic (using stem cells donated by an identical twin)