

# **TRAIN FOR SUCCESS INC. CHEMOTHERAPY 4Hr**

---

PREPARED BY MICHELLE BROOMFIELD RN

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **PURPOSE**

The purpose of this course is to review Chemotherapy, oncology and how to care for the patient who has a diagnosis of cancer. This course is appropriate personnel within the healthcare environment/ settings, such as; ARNP, RN, LPN and CNA who are working in the health care settings, Therapists as well as other students, individuals who would like to be educated regarding cancer care for a friend or family member. The course allows you to review the route of administration for Chemotherapy delivery such as Intravenous Route, Oral (by mouth), Subcutaneous Injection, Intrathecal route, I.M. Injection, intra-arterial (IA) route, Intraperitoneal (IP) and topical application. Review radiation therapy action and potential side effects, how to take care of the patient with cancer and various nursing interventions and rationales and Diagnostic Studies / tests that are frequently completed while caring for the cancer patient.

### **Objectives/ Goals:**

After successful completion of this course the students will be able to:

1. Define Chemotherapy
2. Describe how to care for the cancer patient
3. Discuss potential for exposure to hazardous drugs and engineering, administrative controls, and proper protective equipment.
4. Discuss Chemotherapy action and potential side effects
5. Discuss the route of administration for Chemotherapy delivered such as Intravenous Route, Oral (by mouth), Subcutaneous Injection, Intrathecal route, I.M. Injection, intra-arterial (IA) route, Intraperitoneal (IP) and topical application.
6. Discuss Diagnostic Studies / tests that are frequently completed while caring for the cancer patient
7. Discuss some nursing diagnosis, nursing interventions and rationales.

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

## INTRODUCTION

### CHEMOTHERAPY

Chemotherapy is a drug treatment that uses powerful chemicals to control or kill fast-growing cells in the body. Chemotherapy is most often used to treat cancer, since cancer cells grow and multiply much more quickly than most cells in the body. Chemotherapy works by slowing or stopping the growth of the cancer cell, which grows and divides rapidly.

Chemotherapy can also harm the healthy cells that also divide quickly, such as the cells that line the intestines and the mouth or the cells that cause hair to grow. Therefore damage to the healthy cells may cause some side effects. Most often, the side effects are reduced or go away after the chemotherapy is over.

Depending on the type of cancer and how advanced it is chemotherapy can:

- **Cure cancer:** when the chemotherapy destroys cancer cells to the point that the physician can no longer detect the cancer cells in the body and they will not grow back.
- **Control cancer:** when chemotherapy keeps the cancer from spreading, slows its growth, or destroys cancer cells that have spread to other parts of the body.
- **Ease cancer symptoms** (palliative care): when chemotherapy shrinks cancer cells or tumors that are causing pressure or pain.

Sometimes, chemotherapy is used as the only cancer treatment. At other times, chemotherapy will be used along with radiation therapy or surgery. Chemotherapy may be given in cycles. A cycle is a period of chemotherapy treatment followed by a period of rest. The rest period gives the body a chance to build new healthy cells.

Chemotherapy is delivered via:

- Intravenous (I.V.) route - The chemotherapy goes directly into a vein

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

- Oral (by mouth) - The chemotherapy comes in pills, capsules, or liquids that the patient can swallow.
- Subcutaneous Injection- The chemotherapy is given by an injection/ shot right under the skin into the fatty part of the arm, leg, or belly.
- Intrathecal- injected into the fluid-filled space between the thin layers of tissue that cover the brain and spinal cord
- I.M. Injection. The chemotherapy is given by a shot in a muscle in the arm, thigh, or hip.
- intra-arterial (IA)- The chemotherapy goes directly into the artery that is feeding the tumor/ cancer.
- Intraperitoneal (IP). The chemotherapy goes directly into the peritoneal cavity (the area that has organs such as the intestines, liver, stomach and ovaries).
- Topically- The chemotherapy comes in a cream that can be rubbed onto the skin

The healthy cells as well as the cancerous cells go through similar life cycle and they are affected and vulnerable to the chemotherapy drugs in similar manner. Therefore, patients will be given cycle specific and /or cycle-nonspecific medications.

Cell -cycle specific medications are chemotherapy drugs that are able to kill cancer cells during a specific phase and are unable to work in the resting phase.

cycle-nonspecific medications are Chemotherapy drugs that act against cancer cells at any phase of the cell cycle, including the resting phase. Cell-cycle nonspecific drugs are most effective when given in bolus doses. Cell death may not take place at the exact time the *chemotherapy* is given.

Physicians often combine specific and non-specific chemotherapies so that they can complement each other and work together.

Cancer care teams use various methods to gauge if the treatment is working, depending on the type of cancer being treated.

Many patients will have radiology studies such as:

- CT scans- computerized tomography
- MRI - Magnetic Resonance Imaging
- Pet scans - positron emission tomography

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

These radiology studies will see if the tumor has responded; either reduce / shrunk or stayed the same versus has gotten larger or spread.

Some types of tumors can be followed by checking a tumor marker in the blood. This is a substance that is either produced by the tumor or by the body in response to the tumor, and can be measured by a blood test. If the chemotherapy is working, the blood test would reveal that the tumor marker has decreased. In some cases, a decrease in a patient's symptoms might be a sign of whether the medications are working against the tumor or not.

Many health care institutions require nurses involved in the administration of chemotherapy to complete a certification program, which covers the different types of chemotherapy agents, how to administer the drugs safely, the possible side effects, complications that may be encountered and how to care for the patient with cancer. When taking care of the patient who is receiving chemotherapy, you have to take precautions to avoid any accidental exposure from the patient's body fluids.

Some precautions include:

- Wearing an impermeable gown which has long sleeves and a closed front,
- goggles, mask / face shield,
- Chemotherapy gloves (If no chemotherapy gloves are available, two pairs of non-latex or latex gloves can be used).

If the chemotherapy medications or the patient's body fluids come in contact with your skin, wash the skin thoroughly with soap and water to prevent the medication from absorbing into your skin (follow your facility's policy at all times).

If the fluids or the medications come into contact with your eye, immediately flood the eye with water for at least 5 minutes, while holding the eyelid open, isotonic eyewash may also be used to wash your eye. Always update your supervisor immediately after an accidental exposure (follow your facility's policy at all times).

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Monitor patients for complications.

Some complications from chemotherapy administration:

Infusion related complications include:

- Infiltration,
- Extravasation,
- Vein flare ( a bright redness),
- Anaphylactic reaction

Some Short term adverse effects:

- Hair loss / alopecia
- stomatitis
- Nausea and vomiting,
- Diarrhea,
- Myelosuppression (condition in which bone marrow activity is decreased)

Some Long term adverse effects:

Organ system dysfunction:

- Gastrointestinal,
- renal,
- pulmonary,
- cardiac,
- reproductive,
- neurologic dysfunction,
- early menopause and weight gain.

Rare side effects include heart problems and leukemia.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **POTENTIAL FOR HAZARDOUS DRUGS EXPOSURE**

Health care employees who prepare or administer hazardous medications such as those used for cancer therapy, and some antiviral drugs, bioengineered drugs and hormone agents or who work in areas where these medications are used may be exposed to these agents in the workplace.

According to the CDC, about 8 million U.S. healthcare employees are potentially exposed to hazardous drugs, including nursing personnel, physicians, pharmacy personnel, operating room personnel, environmental services workers, workers in research laboratories, veterinary care employees, shipping and receiving personnel.

Studies have shown that workplace exposures to hazardous drugs can cause both acute and chronic health effects such as skin rashes, adverse reproductive outcomes (including infertility, spontaneous abortions, and congenital malformations), and possibly leukemia and other cancers (CDC 2016).

The health risk depends on how much exposure an employee has to these medications and how toxic they are. Workers can be protected from exposures to hazardous drugs through engineering and administrative controls, and proper protective equipment;

Double gloves

Protective gown

Eye protection

Respiratory protection

Ventilated engineering controls

SEE RESOURCES FOR LIST OF ANTINEOPLASTIC DRUGS; Administration, protective requirement etc. at [http://www.cdc.gov/niosh/docs/2014-138/pdfs/2014-138\\_v3.pdf](http://www.cdc.gov/niosh/docs/2014-138/pdfs/2014-138_v3.pdf)

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

### RADIATION THERAPY

Radiation therapy uses high-energy radiation to shrink tumors and kill cancer cells. Types of radiation used for cancer treatment are;

- X-rays,
- gamma rays, and
- charged particles.

The radiation may be delivered by a machine outside the body (external-beam radiation therapy), or it may come from radioactive material placed in the body near cancer cells (internal radiation therapy, also called brachytherapy).

Systemic radiation therapy uses radioactive substances, such as radioactive iodine, that travel in the blood to kill cancer cells.

About 1/2 of all cancer patients receive some type of radiation therapy sometime during the course of their treatment.

Radiation therapy kills cancer cells by damaging their Deoxyribonucleic acid (DNA) the molecule that carries most of the genetic instructions used in the growth and development, functioning and the reproduction of all known living organisms

Radiation therapy can either damage Deoxyribonucleic acid (DNA) directly or create charged particles (free radicals) within the cells that can in turn damage the Deoxyribonucleic acid (DNA).

When the cancer cell Deoxyribonucleic acid (DNA) is damaged beyond repair, it stops dividing or it dies. When these damaged cells are dead, they are then broken down and eliminated by the body.



# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Radiation therapy is sometimes given with curative intent (with the hope that the treatment will either eliminate the tumor, and /or prevent the cancer from reoccurring.

Radiation therapy may be used alone or in combination with surgery, chemotherapy, or both.

Radiation therapy may also be given for palliative purposes. Palliative treatments are not intended to cure but to relieve symptoms and also to reduce suffering caused by the cancer.



## **ONCOLOGY**

Oncology is defined as the study of cancer. An oncologist is a physician who treats cancer. The oncologist manages a patient's care and treatment when the patient has been diagnosed with cancer.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

The field of oncology has 3 major areas:

- Medical,
- Surgical, and
- Radiation.

### **MEDICAL ONCOLOGY**

The medical oncologists treat cancer using chemotherapy or other medications, for example targeted therapy.

### **SURGICAL ONCOLOGY**

The surgical oncologists remove the tumor and the nearby tissue during a surgical procedure. The surgical oncologists also perform certain types of biopsies.

### **RADIATION ONCOLOGY**

The radiation oncologists treat the cancer using radiation therapy.

There are other types of oncologists such as:

### **PEDIATRIC ONCOLOGIST**

The Pediatric oncologist works with children who have cancer. Some types of cancer occur most often in children /teenagers, for example certain types of leukemia, brain tumors, osteosarcoma.

### **GYNECOLOGIC ONCOLOGIST**

The gynecologic oncologist focuses on treating gynecologic cancers, for example cervical cancer and uterine cancer.

### **HEMATOLOGIST ONCOLOGIST**

The hematologist oncologist diagnoses and treats blood cancers, for example myeloma, leukemia, and lymphoma.

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

Some of the roles of the oncologist include:

- Discussing and providing an explanation to the patient regarding the cancer diagnosis and stage of the cancer.
- Providing high quality patient care
- Helps the patients manage the pain that is related to cancer
- Helps the patients manage symptoms
- Helps the patients manage treatment side effects
- Discuss with the patient, all the significant treatment options and the recommendations made by the oncologists
- Providing high quality compassionate care

Some medical personnel who may also be involved in the patient's care include:

### **DIAGNOSTIC RADIOLOGIST**

The Diagnostic radiologist specializes in completing and reading imaging tests to diagnose disease for example x-rays or ultrasound or x-rays.

### **Pathologist**

Pathologist specializes in reading laboratory tests and checking cells, tissues, and organs to diagnose disease.

### **Oncology social worker**

The roles of the *oncology social worker* includes providing assistance to the patients, their families, and caregivers to face and deal with the cancer diagnosis. *Social workers* are skilled and educated and skilled to assist with the psychological, emotional, *social* and spiritual issues that the patients have to deal with in *oncology*.

The oncology team may also include physicians who specialize in other areas of medicine and an oncology nurse.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

When a patient's cancer diagnosis is very complex, the patient's oncologist might ask a tumor board to review the patient's case. The tumor board is made up of medical experts from all relevant areas; they will help to decide the best course of treatment.

A patient with cancer is often treated by a team of oncologists who specialize in different areas of oncology. This approach is helpful because cancer treatment frequently involves a combination of chemotherapy, radiation therapy and surgery.

### **CARING FOR THE PATIENT WITH CANCER**

Some Nursing Priorities for patients with cancer:

- Promote comfort (patients often experience pain/discomfort)
- Prevent complications
- Maintain optimal physiological functioning
- Support adaptation
- Support independence
- Provide information about condition, disease process
- Provide information about the prognosis,
- Provide information about treatment needs

### **Goals**

- Pain control
- Achieve homeostasis
- Prevent Complications or minimize
- Patient understands condition, disease process
- Patient understands prognosis
- Patient understands therapeutic choices
- Patient understands and regimen.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **Some Diagnostic Studies / Test:**

#### **Endoscopy:**

Used for direct visualization of the body organs and cavities to detect any abnormalities.

#### **Screening chemistry tests such as:**

- Electrolytes;
- sodium,
- calcium,
- potassium
- renal tests such as Blood Urea Nitrogen (BUN)/Creatinine,
- liver tests; Aspartate Aminotransferase (AST), Bilirubin, Lactate Dehydrogenase (LDH), Alkaline phosphatase,

Bone tests such as calcium.

Scans such as magnetic resonance imaging (MRI), CT, gallium and ultrasound, may be done for identifying metastasis or for diagnostic purposes or to evaluate for improvement.

Biopsy - fine-needle aspiration, incisional /excisional: can be taken from the skin, bone marrow, organs.

#### **Tumor markers**

substances produced, secreted by the tumor cells;  
found in serum for example:

Prostate-specific antigen (PSA)  
Human chorionic gonadotropin (HCG)  
carcinogenic embryonic antigen (CEA),  
Alpha-fetoprotein etc.

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

CBC with differential and platelets:

May indicate anemia,  
changes in Red Blood Cells (RBC)  
changes in White Blood Cell (WBC);  
Decreased or increased platelets.

Chest x-ray:  
Screen for metastatic disease of the lungs.



**Patient may experience Acute Pain**

Pain may be related to –

Disease process -  
compression of nerve tissue  
destruction of nerve tissue,

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

infiltration of nerves or  
the vascular supply,  
obstruction of a nerve pathway,  
inflammation.

### **ACUTE PAIN AS;**

#### **Evidenced by:**

- Verbalization of pain
- Autonomic responses such as restlessness due to acute pain
- Facial grimace of pain
- Guarding behavior

What are some desired outcomes?

- Experience maximal pain relief
- Follow the prescribed medication regimen
- Pain control with minimal interference with activities of daily living.
- Demonstrate use of relaxation techniques

### **WHAT SHOULD THE NURSE DO TO ASSIST THE CANCER PATIENTS?**

#### **INTERVENTIONS**

**The nurse needs to determine pain history;**

Location of pain,  
Pain frequency,  
Duration of the pain,  
The intensity of the pain (use numeric scale 0–10 scale),  
or verbal rating scale - patient reports no pain or severe pain  
Pain relief measures used

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Determine timing of breakthrough pain when using around the clock agents, Intravenous, oral, Pain patch medications.

Pain may occur near the end of the dose interval, which could indicate need for more medication (higher dose or shorter dose interval).

Nurse needs to be aware of painful effects of various therapies such as: chemotherapy, radiation, surgery, biotherapy.

ALWAYS provide information to patients regarding what to expect.

### **RATIONALES**

Pain may be associated with:

Invasive procedures used to diagnose or to treat the cancer

Incisional pain,

Burning skin,

low back pain etc

Assist with nonpharmacological comfort measures such as:

Changing positions,

Massage,

Backrub

Diversional activities; such as television, reading, music.

### **RATIONALE**

Promotes relaxation of patients and helps to refocus their attention.

Encourage use of stress management techniques

Encourage use of complementary therapies; laughter, relaxation

techniques, guided imagery, visualization, biofeedback, music, therapeutic touch, and aromatherapy.

### **RATIONALE**

Help patients participate actively in non-pharmacological treatment of pain.



# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Provide cutaneous stimulation:  
Heat or cold,  
Massage

### **RATIONALE**

This may decrease muscle spasms, reduce inflammation, reducing pain.  
**BE CAREFUL!!** - Heat may increase bleeding, edema after an acute injury.  
Cold therapy may decrease perfusion to the ischemic tissues.

The nurse needs to be aware of obstacles to cancer pain management;  
Patients may not report pain due to:  
Worried about medications side effects,  
Fear that disease is getting worse,  
Cost of treatments,  
Worried about controlled substances and addiction

The nurse needs to evaluate pain relief /control at regular intervals and adjust the medication regimen as necessary.

### **RATIONALE**

The goal is for maximum pain control  
Pain control with minimum interference with activities of daily living.

Inform the patient of the expected therapeutic effects.  
Discuss effective management of the side effects

### **RATIONALE**

This information will help to establish realistic expectations.

Discuss the use of additional alternative therapy or discuss complementary therapies such as acupuncture, acupressure.

### **RATIONALE**

May provide pain relief or reduction without medications or without side effects from medications.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---



### **Administer analgesics as indicated:**

Opioids:

Codeine,  
Morphine (MS Contin),  
oxycodone (oxycontin)  
hydrocodone (Vicodin),  
Hydromorphone (Dilaudid),  
Methadone (Dolophine),  
Fentanyl (Duragesic),  
Oxymorphone (Numorphan)

### **RATIONALE**

Analgesics may be administered around the clock to manage pain.

Administraion of :

Acetaminophen (Tylenol),  
Nonsteroidal anti-inflammatory drugs (NSAIDs), Aspirin, Ibuprofen; Advil,  
Motrin.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

Effective for generalized moderate to severe pain, with long-acting and controlled-release forms.

### **ADMINISTER;**

Peroxycam (Feldene)

Routes include;

oral,

transmucosal,

transdermal,

nasal,

rectal,

infusions; IV,

subcutaneous injection

(IM use not recommended- due to painful, absorption is not reliable).

### **ADMINISTER:**

Indomethacin (Indocin)

Adjuvant drugs are useful for mild to moderate pain and can be combined with opioids and other medications.

### **ADMINISTER:**

#### **Corticosteroids:**

Dexamethasone (Decadron)

Very effective in controlling pain that is associated with the inflammatory process for example;

Metastatic bone pain,

Acute spinal cord compression

Neuropathic pain.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Evaluate effectiveness of ALL interventions.

### **Altered Nutrition: Less Than Body Requirements**

#### **Can be related to:**

Hyper metabolic state that is associated with the cancer;

- Fatigue, emotional distress, poorly controlled pain
- Consequences of radiation, chemotherapy, surgery, for example;
  - anorexia,
  - gastric irritation,
  - vomiting,
  - taste distortions,
  - nausea

#### **Evidenced by:**

- Diarrhea
- constipation,
- abdominal cramping
- Patient reports loss of appetite, inadequate food intake, loss of interest in food, altered taste, inability to ingest food.
- Inflamed, sore buccal cavity
- Body weight - loss;
  - 20% or higher weight loss (less than ideal for height /frame), decreased subcutaneous tissue /fat, decreased muscle mass.

#### **What are some desired outcomes?**

- Demonstrate stable weight
- Progressive weight gain towards goal
- normal laboratory values
- Free of signs of malnutrition
- Verbalize understanding of individual interference to adequate intake.
- Participate in interventions to increase appetite

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

- Participate in interventions to increase dietary intake.

### INTERVENTIONS

Monitor daily food intake (have patient keep food diary).



### RATIONALE

This helps to identify nutritional deficiency and /or strengths.

Measure weight, height etc.  
To assess the amount of weight loss,  
Weigh patient daily

### RATIONALE

If the measurements fall below normal ranges, then the patient's fat (main source of stored energy) is reduced.

Encourage the patients to:  
Eat high calorie intake,  
Eat nutrient rich diet,  
Have adequate fluid intake.  
Encourage smaller meals spaced through the day  
Encourage intake of supplements  
Encourage frequent small meals

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### RATIONALE

Fluid needs have increased (to eliminate waste products)

Metabolic tissue needs have increased

Supplements can assist in maintaining adequate protein and caloric intake.

Assess the skin and mucous membranes for:

Pallor,

Enlarged parotid glands

Delayed wound healing.

### RATIONALE

Helps in identifying malnutrition (protein-calorie malnutrition with; body weight less than normal).

Adjust the diet before and after treatment;

clear liquid,

cool liquids,

carbonated drink,

light or bland food,

dry crackers,

toast.

Give liquids 1 hour before or 1 hour after meals.

### RATIONALE

Avoiding fluids during meals helps to minimize being full too quickly.

The effectiveness of diet adjustment- relief of post therapy nausea.

Control environmental factors; strong odors,

Avoid fatty, sweet, spicy foods.

This can trigger nausea/ vomiting.

The patients need a pleasant dining atmosphere to enhance meal intake.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **INTERVENTION**

Encourage patients to use relaxation techniques, guided imagery, moderate exercise before meals.

### **RATIONALE**

To prevent onset of nausea or reduce the severity of nausea, and helps the patient to increase meal intake.

### **INTERVENTIONS**

Administer antiemetic on a regular schedule before administration of antineoplastic agent or

Administer antiemetic during administration of antineoplastic agent or

Administration of antiemetic agent after administration of antineoplastic agent.

### **RATIONALE**

Nausea and vomiting are the most common side effects of chemotherapy.

Evaluate effectiveness of antiemetic.

### **RATIONALE**

First line antiemetics may not be effective, and may require adjustment or combination drug therapy.

### **INTERVENTIONS**

Hematest stools and gastric secretions.

### **RATIONALE**

Some antimetabolites inhibit renewal of the epithelial cells of the lining the Gastrointestinal tract, which can cause changes; from mild redness (erythema) to severe bleeding (ulceration).

### **INTERVENTION**

Review laboratory studies such as:

Total lymphocyte count,

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

serum transferrin,  
Albumin  
prealbumin.

### RATIONALE

Helps to identify the degree of malnutrition, biochemical imbalance, and influences dietary interventions.

Anticancer treatments can alter nutrition studies, therefore all results must be correlated with patient's clinical condition/ status.



Refer patient to dietary support team / Dietician.

### RATIONALE

Provides specific diet plan to meet the patient's needs and reduce problems associated with malnutrition (protein, calorie malnutrition).

### INTERVENTION

Insert nasogastric (NG) / feeding tube for enteric feeding or  
Place central line for total parenteral nutrition (TPN) if ordered.



# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

### RATIONALE

With severe malnutrition, which is loss of 25%–30% body weight in 2 months or if the patient has been NPO for 5 days and not unlikely to be able to eat for a few more days, tube feeding or total parental nutrition (TPN) may be needed to meet the nutritional needs.



### Risk for Fluid Volume Deficit

Some risk factors may include:  
Impaired fluid intake;

- Excessive losses through vomiting, diarrhea, wounds, indwelling tubes, etc.
- Hypermetabolic state

### Some desired outcomes

Display adequate fluid balance as evidenced by;  
stable vital signs,  
moist mucous membranes,  
good skin turgor,  
prompt capillary refill,

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

adequate urinary output.

### **INTERVENTION**

Monitor I&O include all sources of output; emesis, diarrhea, draining wound,  
Monitor specific gravity.

### **RATIONALE**

If there is decreasing renal output, and concentration of urine suggest dehydration and the need for increase fluid replacement.

### **INTERVENTION**

Weigh patients

### **RATIONALE**

Fluctuations in fluid balance.

### **INTERVENTION**

Monitor vital signs,  
Evaluate peripheral pulses,  
Check capillary refill.

### **RATIONALE**

Reflects adequacy of circulation /circulating volume.

Assess skin turgor and moisture of mucous membranes. Note reports of thirst./Indirect indicators of hydration status and degree of deficit.

Encourage increased fluid intake (3000 mL per day) if not contraindicated.

### **RATIONALE**

Assists in maintaining fluid requirements and reduce the risk of some harmful side effects for example,  
cyclophosphamide (Cytoxan) - hemorrhagic cystitis.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **INTERVENTION**

Administer IV fluids as ordered.

### **RATIONALE**

IV fluids are administered for general hydration and also to dilute the antineoplastic medications

and decrease adverse side effects such as:

Nausea

vomiting,

Nephrotoxicity.

### **INTERVENTION**

Observe for bleeding tendencies;

Blood coming from mucous membranes,

Blood coming from puncture sites

Presence of ecchymosis

Presence of petechiae.

### **RATIONALE**

Early identification of bleeding problems due to cancer or treatments will allow for quick interventions.

### **INTERVENTION**

Minimize venipuncture procedures by combining IV insertions with phlebotomy /blood draws procedures.

Utilize central venous catheter.

### **RATIONALE**

Reduce discomfort from frequent /repeated venipuncture procedures,  
Decreases potential for bleeding /hemorrhage and/ or infection associated with frequent venous puncture.

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

### INTERVENTION

Avoid trauma

Apply pressure to puncture sites.

### RATIONALE

Decreases the potential for bleeding or formation of hematoma.

### INTERVENTION

Monitor laboratory results such as:

Complete Blood Count (CBC),

Electrolytes,

Serum albumin.



### RATIONALE

Laboratory tests will provide information about the level of hydration.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---



### **PATIENTS WITH CANCER OFTEN EXPERIENCE Fatigue**

**This can be related to:**

- Increased energy requirements; hyper-metabolic state
- Effects of treatment
- Poor pain management
- side effects of pain medications
- side effects of chemotherapy
- Overwhelming psychological demands
- Increased emotional demands
- Altered body chemistry

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Evidenced by;

- Lack of energy,
- inability to maintain usual routines,
- decreased performance,
- impaired ability to concentrate,
- lethargy
- listless

### **Some Desired Outcomes:**

- Report improved sense of energy
- Perform activities of daily living (ADL)
- Participate in desired activities at level of the patient's ability.

### **INTERVENTIONS**

Have patient rate fatigue (use a numeric scale) and report or note Time of day when the fatigue is most severe.

#### **RATIONALE**

This helps to develop a plan for managing the fatigue.

Assess vital signs to monitor physiological response to activity; changes in heart rate, respiratory rate, blood pressure.

#### **RATIONALE**

Depending on stage of disease process, tolerance vary (fluid balance, nutritional state, reaction to therapeutic regimen).

#### **INTERVENTION**

Establish realistic / manageable activity goals with the patient.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

Provides for feelings of accomplishment and  
Provides for a sense of control.

### **INTERVENTION**

Monitor for pain (complete pain assessment)  
Provide pain management.

### **RATIONALE**

Pain that is not managed appropriately contributes to the fatigue.

### **INTERVENTION**

Provide supplemental oxygen as ordered.

### **RATIONALE**

Presence of Hypoxemia and anemia decreases oxygen available and  
contributes to fatigue.

### **INTERVENTION**

Allow for rest periods.

Schedule activities for periods when the patient has the most energy.

### **RATIONALE**

Frequent rest periods are necessary to restore energy or to conserve  
energy.

### **INTERVENTION**

Assist with self-care needs

Assist with ambulation

Maintain safe (clutter free) environment - high risk for falls /injury

Maintain bed in low position,

Keep pathway clear of equipment/furniture.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

Weakness will make activities of daily living very difficult to complete.  
Weakness /Fatigue increase the patient's risk for injury during all activities.

### **INTERVENTION**

Encourage patients to participate in their care as much as possible for example ambulation activities, bathing etc. Increase the level of activity as the patient is able.

### **RATIONALE**

Enhances strength and enables patient to become more active without overexertion.

### **INTERVENTION**

Refer patient to physical therapy or occupational therapy. Implement use of adaptive devices (Walker etc.) as indicated.

### **RATIONALE**

Programmed activities/ exercises help patients maintain strength, increase strength, increase muscle tone, and enhance sense of well-being. Use of adaptive devices (walker etc) may help patients conserve energy.

.



# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---



### **Risk for Infection**

#### **Some risk factors may include:**

- Immunosuppression, for example bone marrow suppression which is often dose- limiting side effect of both radiation and chemotherapy.
- Malnutrition
- Chronic disease process
- Invasive procedures

#### **Some Desired Outcomes include:**

- Identify interventions to prevent infection /reduce the risk of infection.
- Participate in interventions to prevent infection /reduce the risk of infection.
- Achieve timely healing
- Remain afebrile

### **INTERVENTIONS**

Promote good hand hygiene (hand washing procedures - staff as well as visitors). Screen visitors and limit visitors who may have infections. Place patient in reverse isolation as indicated.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

Protects the patient from sources of infection (staff, visitors) who may have upper respiratory infection (URI).

### **INTERVENTION**

Promote personal hygiene.

### **RATIONALE**

Limits potential sources of infection.

### **INTERVENTION**

Monitor vital signs: body temperature.

### **RATIONALE**

Early identification of infectious process (elevated temperature) enables appropriate therapy to be started quickly. Temperature elevation can occur because of multiple factors such as infections, disease process, chemotherapy side effects.

### **NOTE !!**

Temperature elevation can be masked by anti-inflammatory drugs or corticosteroids.

### **INTERVENTION**

Complete assessments of all body systems; respiratory, integumentary, genitourinary, gastrointestinal systems for signs and symptoms of infection.

### **RATIONALE**

Early detection and intervention can assist in preventing the progression to more serious complications or sepsis.

### **INTERVENTION**

Promote adequate rest periods and exercise periods.

### **RATIONALE**

Limits/ reduces fatigue and employs adequate movement/ activities to

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

prevent stasis complications such as decubitus, pneumonia, and thrombus formation.

### **INTERVENTION**

Reposition patient frequently, keep linens dry, keep linen wrinkle free.

### **RATIONALE**

Decreases pressure/ irritation to tissues which helps to prevent skin breakdown.

### **INTERVENTION**

Limit invasive procedures as much as possible.  
Maintain aseptic techniques.

### **RATIONALE**

Decreases the risk of contamination, reduces entry for infectious organisms.

### **INTERVENTION**

Promote good oral hygiene.

### **RATIONALE**

If the patients develop stomatitis this increases the risk of infection.

### **INTERVENTIONS**

Monitor Complete Blood Count (CBC) with differential, White Blood Count (WBC) platelets, granulocyte count as ordered.

### **RATIONALE**

Bone marrow activity may be inhibited by the effects of radiation therapy, chemotherapy and the disease state.

Monitoring the status of myelosuppression is vital for preventing complications such as anemia, infection or hemorrhage and scheduling medication delivery.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### INTERVENTIONS

Obtain cultures as ordered.

### RATIONALE

Identifies the organisms causing the infection and identify the appropriate treatment.

### INTERVENTION

Administer antibiotics as ordered.

### RATIONALE

Antibiotics may be used to treat infection or administered prophylactically in patients who are immunocompromised.

## **Risk for Altered Oral Mucous Membranes**

### **Risk factors may include:**

- Side effect of some medications such as chemotherapeutic agents; antimetabolites and radiation
- Malnutrition,
- Dehydration,
- NPO restrictions (for more than 24 hr)

### **Some Desired Outcomes**

- Exhibit intact mucous membranes (moist, pink, free of ulcerations and inflammation.
- Demonstrate techniques to maintain integrity of oral mucosa.
- Understands causative factors.
- Demonstrate techniques to restore integrity of oral mucosa.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **INTERVENTIONS**

Assess dental health status  
Check on oral hygiene.

#### **RATIONALE**

Provides baseline data of current oral health/ hygiene.  
Assist in identifying prophylactic treatments that may be needed before starting chemotherapy or radiation.

#### **INTERVENTION**

Keep lips moist with lip balm or gloss, chapstick, K-Y Jelly.

#### **RATIONALE**

Prevents drying, cracking of lips, mucous membranes/ tissues and promotes comfort.

#### **INTERVENTION**

Instruct patients regarding methods for good oral care. Teach patients to avoid products that contain alcohol or phenol.

#### **RATIONALE**

Products that contains alcohol or phenol may exacerbate mucous membrane irritation and dryness.

#### **INTERVENTION**

Encourage patients to check oral cavity each day and report any abnormal changes in the mouth. Report changes in voice quality, burning in the mouth, ability to swallow, development of viscous/ thick saliva, changes in sense of taste, blood tinged emesis. Note all changes in the integrity of the mucous membrane; redness, dryness.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

To control stomatitis complications, good care is vital during treatment.

### **INTERVENTIONS**

Brush with soft toothbrush or use a foam swab. Change toothbrush at least every 3 months.

### **RATIONALE**

To prevent trauma to the fragile/ delicate tissues.

### **INTERVENTIONS**

Instruct patients to floss cautiously/ gently.

### **RATIONALE**

Assist in removing food particles that may promote bacterial growth, but extreme caution has to be used due to risk for injury and infection.

### **INTERVENTIONS**

Administer Opioid analgesics such as hydromorphone (Dilaudid), morphine.

### **RATIONALE**

May be needed for acute episodes of moderate to severe oral pain.

### **INTERVENTIONS**

Avoid commercial mouthwashes, glycerine or lemon swabs.

### **RATIONALE**

Rinsing before meals may improve the patient's sense of taste.

### **INTERVENTIONS**

Use of mouthwash such as;  
warm saline,  
dilute solution of hydrogen peroxide or  
baking soda and water;

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

Rinsing after meals and at bedtime dilutes the oral acids and relieves xerostomia.

### **INTERVENTIONS**

Encourage use of hard candy or mints or artificial saliva such as; Salivart, Ora-Lube as indicated.

### **RATIONALE**

Provides moisture and stimulates secretions to maintain integrity of the mucous membranes (especially when there is decrease saliva production and dehydration).

### **INTERVENTIONS**

Educate patients regarding dietary changes such as;  
avoiding spicy / hot foods,  
avoiding acidic juices,  
suggest use of straw  
ingest soft foods or use a blender to soften foods,  
try popsicles / ice cream as able to tolerate.

### **RATIONALE**

Dietary modifications helps to make foods easier to swallow and may feel soothing.

Severe stomatitis may interfere with fluid and nutritional intake leading to dehydration and /or negative nitrogen balance.

### **INTERVENTIONS**

Encourage fluid intake as tolerated.

### **RATIONALE**

Adequate hydration helps keep mucous membranes moist, preventing cracking and drying.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **Interventions**

Use Antinausea medications

#### **RATIONALE**

When given before starting mouth care regimen, may help to prevent nausea that is associated with oral stimulation.

#### **INTERVENTIONS**

Discuss limitation of smoking and alcohol intake.

#### **RATIONALE**

May cause further dryness and irritation of mucous membranes.

#### **INTERVENTIONS**

Monitor for and explain to patient signs of oral superinfection such as Thrush.

#### **RATIONALE**

Early detection provides opportunity for prompt treatment.

Refer patients to the dentist before starting chemotherapy or neck or head radiation.

#### **RATIONALE**

Prophylactic dental examination and repair work as needed prior to therapy reduce risk of infection.

#### **INTERVENTIONS**

Culture suspicious oral lesions.



# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

Identifies organisms that are responsible for oral infections and indicate appropriate medication/treatment.

### **INTERVENTIONS**

#### **Administer medications as ordered:**

Analgesic rinses (mixture of Koatin, pectin, diphenhydramine/ Benadryl, and topical lidocaine /Xylocaine);  
Using rinse; Instruct Patients to swish-and-spit; DO NOT gargle.

### **RATIONALE**

Analgesia program is often needed to relieve intense pain. Rinse should be used as a swish-and-spit NOT as a gargle (gargling can anesthetize the patient's gag reflex).

### **INTERVENTIONS**

Use Antifungal mouthwash preparation for example nystatin (Mycostatin) or antibacterial Biotane as ordered.

### **RATIONALE**

Often needed to treat secondary oral infections or to prevent secondary oral infections, for example Candida, herpes simplex, Pseudomonas.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **Risk for Impaired Skin Integrity**

Risk factors may include;

- Effects of radiation and chemotherapy
- Immunologic deficit
- Altered nutritional state; anemia

#### **Some Desired Outcomes**

- Participate in techniques to prevent complications
- Participate in techniques to promote healing.

#### **INTERVENTIONS**

Assess skin frequently for side effects of cancer therapy;  
Note any skin impairment or breakdown and delay in wound healing.  
Instruct patients regarding the importance of reporting open areas to the nurse or caregiver.

#### **RATIONALE**

A tanning effect or reddening effect/ radiation reaction, may develop within the field of radiation, desquamation; peeling off of the skin/ dryness and pruritus, moist desquamation/ blistering, ulceration, loss of dermis, hair loss and loss of sweat glands may occur.

Other skin reactions such as hyperpigmentation, allergic rashes, pruritus, alopecia, may occur with some chemotherapy agents.

#### **INTERVENTIONS**

Instruct patients that if alopecia (hair loss) occurs, the hair could grow back after completion of chemotherapy; but may or may not grow back after radiation therapy.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

Anticipatory guidance will help in preparing patients for baldness. Radiation's effect on the hair follicles can be permanent, depending on the dosage of radiation.

### **INTERVENTIONS**

Instruct the patients to use lukewarm water with a mild soap for baths.

### **RATIONALE**

To maintain cleanliness/ good hygiene without irritation to the skin.

### **INTERVENTIONS**

Instruct patients to avoid scratching or vigorous rubbing of the skin and to pat the skin dry instead of vigorous rubbing.

### **RATIONALE**

This helps to prevent skin trauma and friction to the sensitive tissues.

### **INTERVENTIONS**

Encourage patients to Turn or Position (T&P) frequently.

### **RATIONALE**

Prevents prolonged pressure on the tissues and the skin and promotes circulation.

### **INTERVENTION**

Review skin care protocol with the patients receiving radiation therapy, such as; avoid use of soap, avoid rubbing, or use of creams, lotions, ointments, deodorants, powders on the area.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

To minimize trauma to area of radiation therapy. Can interfere/interact with radiation delivery. May increase irritation or reaction. The skin is very sensitive during and after radiation treatment. All irritation should be avoided to prevent injury to the skin/dermal injury.

### **INTERVENTIONS**

Instruct patients to avoid heat application or attempts to wash off tattoos or marks placed on skin to identify area of irradiation.

### **RATIONALE**

Avoiding heat applications help to control dampness or pruritus. Care of the skin is required until the skin and tissues have regenerated and are back to normal.

### **INTERVENTIONS**

Apply Eucerin, Aquaphor, cornstarch, Lubriderm or other water-soluble moisturizing agents that are recommended; to the area two times per day as needed.

### **RATIONALE**

Reduces the risk of tissue irritation and /or extravasation of agents into the tissues.

### **INTERVENTIONS**

Encourage liberal use of sunblock or sunscreen and breathable, protective clothing.

### **RATIONALE**

Development of irritation indicates need for dilution or changes in rate of chemotherapy and change of Intravenous site to prevent further serious reactions.

### **INTERVENTIONS**

Assess the skin and Intravenous site and vein for edema, erythema,

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

tenderness, patches, burning, itching or swelling, soreness, blisters that progresses to ulcers or tissue necrosis.

### **RATIONALE**

The presence of extravasation, phlebitis or vein flare requires immediate discontinuation of the antineoplastic agent and further medical intervention.

### **INTERVENTIONS**

If the antineoplastic agent is spilled on the unprotected skin; of the patient or nurse /caregiver; Wash the skin immediately with soap and water.

### **RATIONALE**

Dilutes the antineoplastic agent and reduces the risk of skin irritation and chemical burn.

### **INTERVENTION**

Encourage the patients wear loose cotton, soft protective clothing; encourage the female patients to avoid wearing a bra if it is causing pressure on the skin.

### **RATIONALE**

Protects skin from ultraviolet rays, loose clothing and avoid trauma or irritation to skin and reduces risk of reactions.

Review expected dermatologic side effects seen with chemotherapy (rash, hyperpigmentation, and peeling of skin on palms)./Anticipatory guidance helps decrease concern if side effects do occur.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **INTERVENTION**

Apply ice pack or warm compresses per protocol.

### **RATIONALE**

Intervention depends on type of agent used Follow your facility protocol. Ice constricts therefore, restricts blood flow and keeps the medication localized. Heat causes vasodilation and enhances the distribution of neoplastic drug or antidote - Always follow the physician's order.

### **INTERVENTIONS**

Instruct patients who are receiving 5-fluorouracil , 5-FU and methotrexate to avoid sun exposure. Withhold the methotrexate if sunburn is present.

### **RATIONALE**

Sun can cause exacerbation of burn spotting, a side effect of 5-fluorouracil or can cause a red flash area with methotrexate, which can exacerbate the medication's effect.

## **Risk for Constipation/Diarrhea**

### **Risk factors may include:**

- Irritation of the Gastrointestinal mucosa from either radiation or chemotherapy therapy (malabsorption of fat)
- Hormone-secreting tumor (carcinoma of colon)
- Poor fluid intake
- low-bulk diet,
- lack of exercise,
- use of narcotics
- use of opiates

# TRAIN FOR SUCCESS INC.

## CHEMOTHERAPY 4Hr

---

### Some Desired Outcomes

- Verbalize understanding of factors and appropriate interventions
- Maintain usual bowel pattern and bowel consistency.

### INTERVENTIONS

Assess for usual elimination habits or changes in normal patterns.

### RATIONALE

Baseline information needed as baseline for future evaluation. Noting changes in normal patterns will allow for quick intervention.

### INTERVENTIONS

Monitor I&O and monitor weight.

### RATIONALE

Inadequate fluid intake can contribute to constipation.

Weight loss, dehydration, electrolyte imbalance are possible complications of diarrhea.



### INTERVENTIONS

Increase fiber intake and encourage adequate fluid intake, 2000 mL per 24 hr. Encourage regular exercise.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **RATIONALE**

May reduce potential for constipation by improving stool consistency and stimulating peristalsis; can prevent dehydration associated with diarrhea.

### **INTERVENTIONS**

Assess bowel sounds and record bowel movements (BMs) including frequency, consistency (particularly during first 3–5 days of Vinca alkaloid therapy).

Defines problem (diarrhea, constipation).

Constipation is one of the earliest manifestations of neurotoxicity.

Provide small, frequent meals of foods low in residue (if not contraindicated), maintaining needed protein and carbohydrates (eggs., cooked cereal, bland cooked vegetables).

Reduces gastric irritation.

Use of low-fiber foods can decrease irritability and provide bowel rest when diarrhea present.

### **Adjust diet as appropriate:**

Avoid foods high in fat (butter, fried foods, nuts); foods with high-fiber content; those known to cause diarrhea or gas (cabbage, baked beans, chili); food and fluids high in caffeine; or extremely hot or cold food and fluids.

Gastrointestinal stimulants that may increase gastric motility frequency of stools.

Check for impaction if patient has not had BM in 3 days or if abdominal distension, cramping, headache are present.



# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Further interventions and alternative bowel care may be needed.

Monitor laboratory studies as indicated:

Electrolytes/Electrolyte imbalances may contribute to altered  
Gastrointestinal function.

### **Administer IV fluids;**

Prevents dehydration, dilutes chemotherapy agents to diminish side effects.

### **Antidiarrheal agents -**

May be indicated to control severe diarrhea.

Stool softeners, laxatives, enemas as indicated.

Prophylactic use may prevent further complications in some patients (those who will receive Vinca alkaloid, have poor bowel pattern before treatment, or have decreased motility).

---

## **Risk for Altered Family Process**

Risk factors may include;

Situational/transitional crises: long-term illness, change in roles/economic status.

Developmental: anticipated loss of a family member

.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### **Some Desired Outcomes**

- Express feelings freely.
- Demonstrate individual involvement in problem-solving process directed at appropriate solutions for the situation.
- Encourage and allow member who is ill to handle situation in own way.

### **INTERVENTIONS/RATIONALES**

Note components of family, presence of extended family and others (friends and neighbors). This helps patient and caregiver know who is available to assist with care or provide respite and support.

Identify patterns of communication in family and patterns of interaction between family members.

This provides information about effectiveness of communication and identifies problems that may interfere with family's ability to assist patient and adjust positively to diagnosis and treatment of cancer.

Assess role expectations of family members and encourage discussion about them.

Each individual may see the situation in own individual manner, and clear identification and sharing of these expectations promote understanding.

Assess; efforts at resolution and problem solving purposeful?

This provides clues about interventions that may be appropriate to assist patient and family in directing energy/efforts in a more effective manner.

Note cultural and religious beliefs.

This affects patient and family reaction and adjustment to diagnosis, treatment, and outcome of cancer.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Listen for expressions of helplessness.

Helpless feelings may contribute to difficulty adjusting to diagnosis of cancer and cooperating with treatment regimen.

Deal with family members in a warm, caring, respectful way. Provide information (verbal and written), and reinforce as necessary (as allowed – maintain HIPAA regulations and patient's privacy rights).

Dealing with family members in a warm, caring and respectful way provides feelings of empathy and promotes individual's sense of worth and competence in ability to handle current situation.

Encourage appropriate expressions of anger without reacting negatively to them.

Feelings of anger are to be expected when individuals are dealing with the difficult and potentially fatal illness of cancer. Appropriate expression enables progress toward resolution of the stages of the grieving process.

Acknowledge difficulties of the situation (diagnosis and treatment of cancer, possibility of death).

Communicates acceptance of the reality the patient and family are facing.

Identify and encourage use of previous successful coping behaviors.

Most individuals have developed effective coping skills that can be useful in dealing with current situation.

Stress importance of continuous open dialogue between family members.

Promotes understanding and assists family members to maintain clear communication and resolve problems effectively.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Refer to support groups, clergy and family therapy as indicated. Patient and family may need additional support/ assistance to resolve problems of disorganization that may accompany diagnosis of cancer / potentially terminal illness.

### **Situational Low Self-Esteem**

May be related to

Biophysical: disfiguring surgery, chemotherapy or radiotherapy side effects, for example loss of hair, nausea/vomiting, weight loss, anorexia, impotence, sterility, overwhelming fatigue, uncontrolled pain

Psychosocial: threat of death; feelings of lack of control and doubt regarding acceptance by others; fear and anxiety

Possibly evidenced by

Verbalization of change in lifestyle; fear of rejection/reaction of others; negative feelings about body; feelings of helplessness, hopelessness, powerlessness

Preoccupation with change or loss

Not taking responsibility for self-care, lack of follow-through

Change in self-perception and other's perception of role

Desired Outcomes

Verbalize understanding of body changes, acceptance of self in situation. Begin to develop coping mechanisms to deal effectively with problems.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Demonstrate adaptation to changes/events that have occurred as evidenced by setting of realistic goals and active participation in work, play, or personal relationships as appropriate.

### INTERVENTIONS/RATIONALES

Discuss with patient and family how the diagnosis and treatment are affecting the patient's personal life, home and work activities.

This helps in defining concerns to begin problem-solving process.

Review anticipated side effects associated with a particular treatment, including possible effects on sexual activity and sense of attractiveness and desirability (alopecia, disfiguring surgery).

Tell patient that not all side effects occur, and others may be minimized or controlled.

Anticipatory guidance can help patient and family begin the process of adaptation to new state and to prepare for some side effects (buying a wig before radiation, schedule time off from work as indicated).

Encourage discussion of concerns about effects of cancer and treatments on role as homemaker, wage earner, parent, and so forth.

May help reduce problems that interfere with acceptance of treatment or stimulate progression of disease.

Acknowledge difficulties patient may be experiencing. Give information that counseling is often necessary and important in the adaptation process.

Validates reality of patient's feelings and gives permission to take whatever measures are necessary to cope with what is happening.

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Evaluate support structures available to and used by patient and family. Helps with planning for care while hospitalized and after discharge.

Provide emotional support for patient and family during diagnostic tests and treatment phase.

Although some patients adapt or adjust to cancer effects or side effects of therapy, many need additional support during this period.

Use touch during interactions, if acceptable to patient, and maintain eye contact.

Affirmation of individuality and acceptance is important in reducing patient's feelings of insecurity and self-doubt.

Refer for professional counseling as indicated.

May be necessary to regain and maintain a positive psychosocial structure if patient and family support systems are deteriorating

**TRAIN FOR SUCCESS INC.**  
**CHEMOTHERAPY 4Hr**

---

**TAKE EXAM**

# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

### BIBLIOGRAPHY

Cancer. Gov (2016) Definition of Medical Oncology. Retrieved from <http://www.cancer.gov/publications/dictionaries/cancer-terms?cdrid=46290>

Cancer. Gov (2016) Facts Sheets. Retrieved from <http://www.cancer.gov/publications/fact-sheets>

CDC.gov (2016) Hazardous Drugs Exposures In Health Care. Retrieved from <http://www.cdc.gov/niosh/topics/hazdrug/default.html>

CDC.gov (2015) OCCUPATIONAL EXPOSURE TO ANTINEOPLASTIC AGENTS AND OTHER HAZARDOUS DRUGS. Retrieved from <http://www.cdc.gov/niosh/topics/antineoplastic/default.html>

Deglin, J.H., Vallerand, A.H. & Sanoski, C.A. (2011). Davis's Drug Guide For Nurses (12<sup>th</sup> ed.) Philadelphia, PA: F.A. Davis Company

Doenges, M.E., Moorhouse, M.F. & Murr, A.C. (2010). Nurse's Pocket Guide; Diagnosis, Prioritized Interventions, and Rationales (12<sup>th</sup> ed.) Philadelphia, PA: F.A. Davis Company

Dugdale, D. (2013) WBC count. Medlineplus Medical Encyclopedia . United States National Library of Medicine. Retrieved from <http://www.nlm.nih.gov/medlineplus/ency/article /003643.htm>

Goldwein, J., & Vachani, C., (2014) Chemotherapy: The Basics. Retrieved from <http://www.oncolink.org/treatment/article.cfm?c=142&id=319>



# **TRAIN FOR SUCCESS INC.**

## **CHEMOTHERAPY 4Hr**

---

Jarvis, C. (2012) Physical Examination & Health Assessment (6<sup>th</sup> ed.) St. Louis, Missouri: ELSEVIER SAUNDERS

Lewis, s., Dirksen, S., Heitkemper, M., Bucher, L., Camera, I. (2011) Medical-Surgical Nursing; Assessment and Management of Clinical Problems. (8<sup>th</sup> ed.) St. Louis, Missouri: ELSEVIER MOSBY

Oncology Nursing Society.org (2016) Teach Your Patients About Oral Chemo Drugs. Retrieved from <https://www.onsoralchemoguide.com/>